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Report on the Preliminary
Archaeological Investigation of the
Southwest and Northeast Bastions
of Fort Frederick Conducted
in October 1973

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SUMMARY

The purpose of the excavation described in this report was to determine if a powder magazine of 1756-1758 date was located in Fort Frederick's southwest and/or northeast bastions, to determine how the magazine or magazines were constructed if found, and to discover any other 1756-1758 period construction details of the two bastions.

The archaeological remains dating most closely to the 1756-1758 period consist of a number of deposits in the southwest bastion which have been tentatively dated as being deposited sometime in the 1756-c.1770 period. These deposits include at least two, and possibly four, garbage deposits. The date and extent of the garbage deposits argue against the bastion having been completely filled with earth during the 1756-1758 period, as it is believed that not until the Revolutionary War did a reason exist for removing such a theoretical fill. However it is conceivable that the fill was removed before the Revolution and that one to three other layers could conceivably be the remnants of this theoretical fill (or the remains of a partial fill). A number of bricks found in the two definite garbage deposits as well as two deposits of shale or slate could conceivably be the remains of some 1756-1758 period structure, such as a powder magazine, built inside the bastion.

A second group of remains was deposited sometime in the 1756-1934 period and could thus conceivably date from the 1756-1758 period. However they could just as conceivably date from the 19th or even 20th century. The most significant of these deposits in the southwest bastion consists of a very large pit-like disturbance which could conceivably be the remains of a powder magazine or other 1756-1758 period structure. In the northeast bastion several significant deposits were found. They include a brick feature which also could conceivably be the remains of a 1756-1758 period powder magazine or other structure. An apparent gravel path possibly leading to this brick feature was also found. Finally, one or two layers which could conceivably be the remains of a 1756-1758 period bas-

tion earth fill were uncovered.

The third group of remains consists of those which were deposited sometime after c.1770. The most significant of these consists of the 1934 Civilian Conservation Corps excavation trenches and the layers apparently deposited by the Corps as backfill sometime in the 1934-1937 period.

While the present investigation failed to definitely answer the question of whether or not a 1756-1758 period powder magazine was built in one or both of the bastions explored (and thus the related question of powder magazine construction), several deposits which could conceivably be the remains of these magazines or other 1756-1758 period structures were found in both bastions. Deposits found in the southwest bastion have provided information on this bastion's 1756-1758 period appearance by suggesting that during this time it was not completely filled with earth. Most importantly, these same southwest bastion deposits indicate that probable pre-Revolutionary War deposits still exist inside the fort despite the extensive excavations carried out in 1934.

INTRODUCTION

Fort Frederick originated as one of a series of frontier forts built by the British and Americans during the French and Indian War. Construction of the fort was begun in the summer of 1756. By the end of 1758 the fort was no longer occupied by military forces, and the site was soon leased to settlers. In 1763 the fort site served as a haven for refugees of Pontiac's Rebellion (Bastian 1970: 2-7).

During the Revolutionary War the fort was again occupied by military forces. In December, 1777 Fort Frederick was chosen by the Continental Congress as the site of a prisoner of war camp. British and German prisoners were confined there at least as late as the end of 1781 (Bastian 1970: 7-9).

After the Revolution the fort site again reverted to civilian hands. Sometime before 1820 religious services were apparently held there regularly. By the end of the 1820's the site had become part of a farm. Except for an alleged short occupation of the fort by Union troops in 1861, the site apparently continued to be occupied by farmers until it was purchased by the State of Maryland in 1922 (Bastian 1970: 9-12).

Restoration and archaeological exploration of Fort Frederick began in 1927 with the exposure of several building foundations inside the fort. In 1930 the fort's well was restored. In 1934 the Civilian Conservation Corps (hereafter referred to as the CCC) carried out extensive excavations inside and outside the fort. That same year the Maryland State Department of Forestry, the National Park Service and the CCC began a three year reconstruction program during which the fort's walls were reconstructed and then, along with a number of building foundations, stabilized. Further excavations were not conducted until 1971 when the Maryland State Archaeologist tested the eastern barracks foundation (Bastian 1970: 12; Kimmel 1973: 36).

The current field work was commenced on October 4, 1973 in the northeast bastion. With the exception of excavating a single short trench in the south-

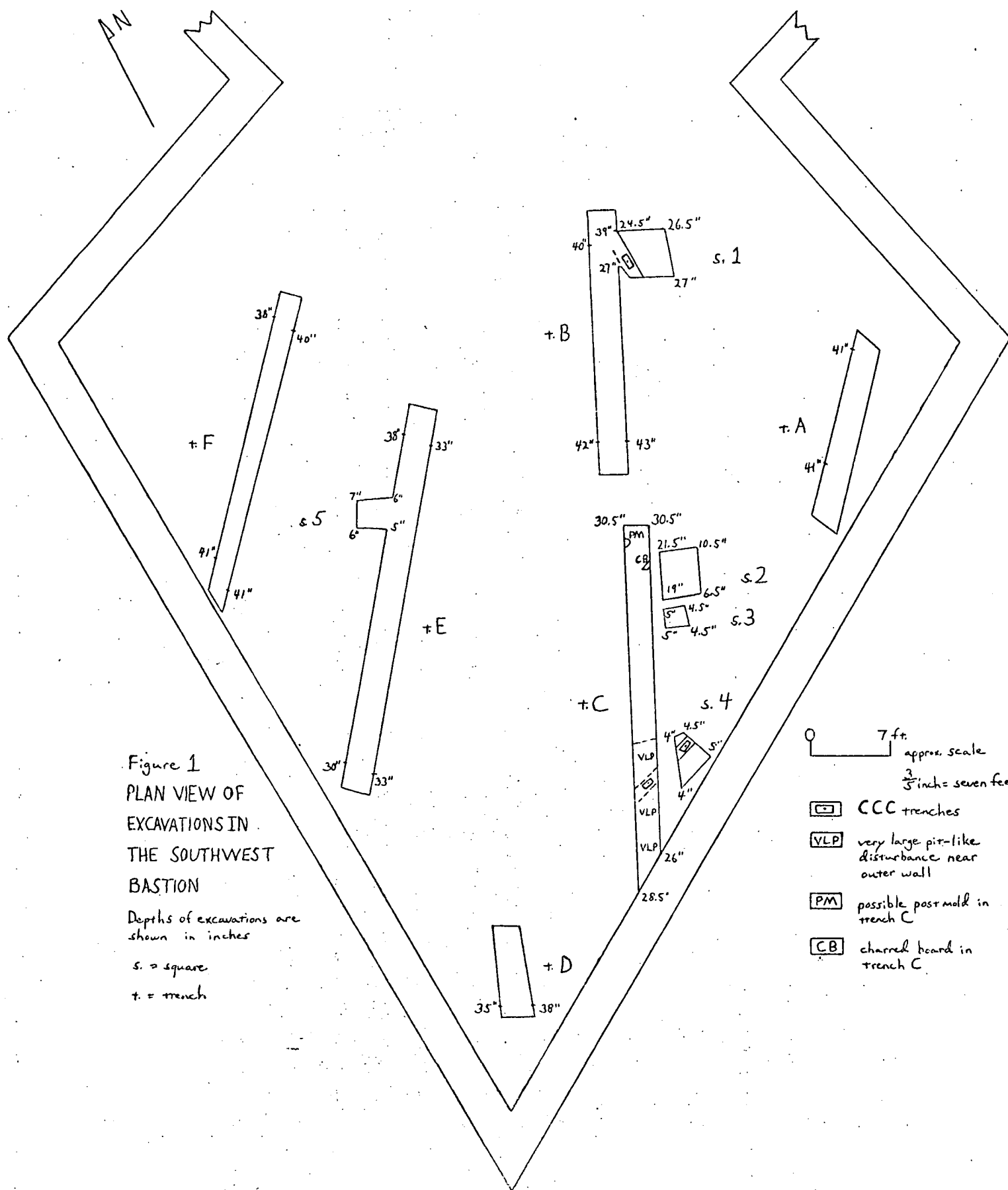


Figure 1
PLAN VIEW OF
EXCAVATIONS IN
THE SOUTHWEST
BASTION

Depths of excavations are
shown in inches

s. = square

t. = trench

- 0 7 ft. approx. scale
3/5 inch = seven feet
- CCC CCC trenches
 - VLP very large pit-like disturbance near outer wall
 - PM possible post mold in trench C
 - CB charred board in trench C

west bastion on October 15th, all work was done in the northeast bastion until October 22nd. Excavation in the northeast bastion was terminated on October 24th. Excavation in the southwest bastion was begun in earnest on October 22nd with the excavation of a number of additional test trenches and was terminated on October 27th.

Artifact washing was begun during the first week of excavations. Almost all artifacts were cleaned by the termination of all excavation work. Those remaining were cleaned during the October 29th - November 17th period. However most of this period was devoted to identifying the artifacts and making additional trench measurements, drawings and excavation notes. On November 17, 1973 field work at the fort was completed.

FIELD TECHNIQUES

All completely hand excavated trenches were delineated by first laying out one long side with cord. A right angle was then turned at each end of the cord with a carpenter's angle to create two of the trench's corners. The short sides of each trench were then extended to the desired length and the two other corners determined in the same manner as the first pair. All backhoe excavated trenches were delineated by simply laying out one long wide with cord. The backhoe cut was then made parallel to, and several inches from the cord. The squares were established either without any measuring at all or by simply measuring with a ruler from already excavated trenches.

Those excavations whose sides were of equal length were designated "squares" and those which had two parallel sides longer than the other two were designated "trenches." The squares in the southwest bastion were designated by Arabic numerals. The one square in the northeast bastion was not given a designation. Trenches in the southwest bastion were given letter designations, while those in the northeast bastion were designated with Roman numerals.

Each trench and square was located horizontally by establishing five per-






Figure 2
PLAN VIEW OF EXCAVATIONS
IN NORTHEAST BASTION

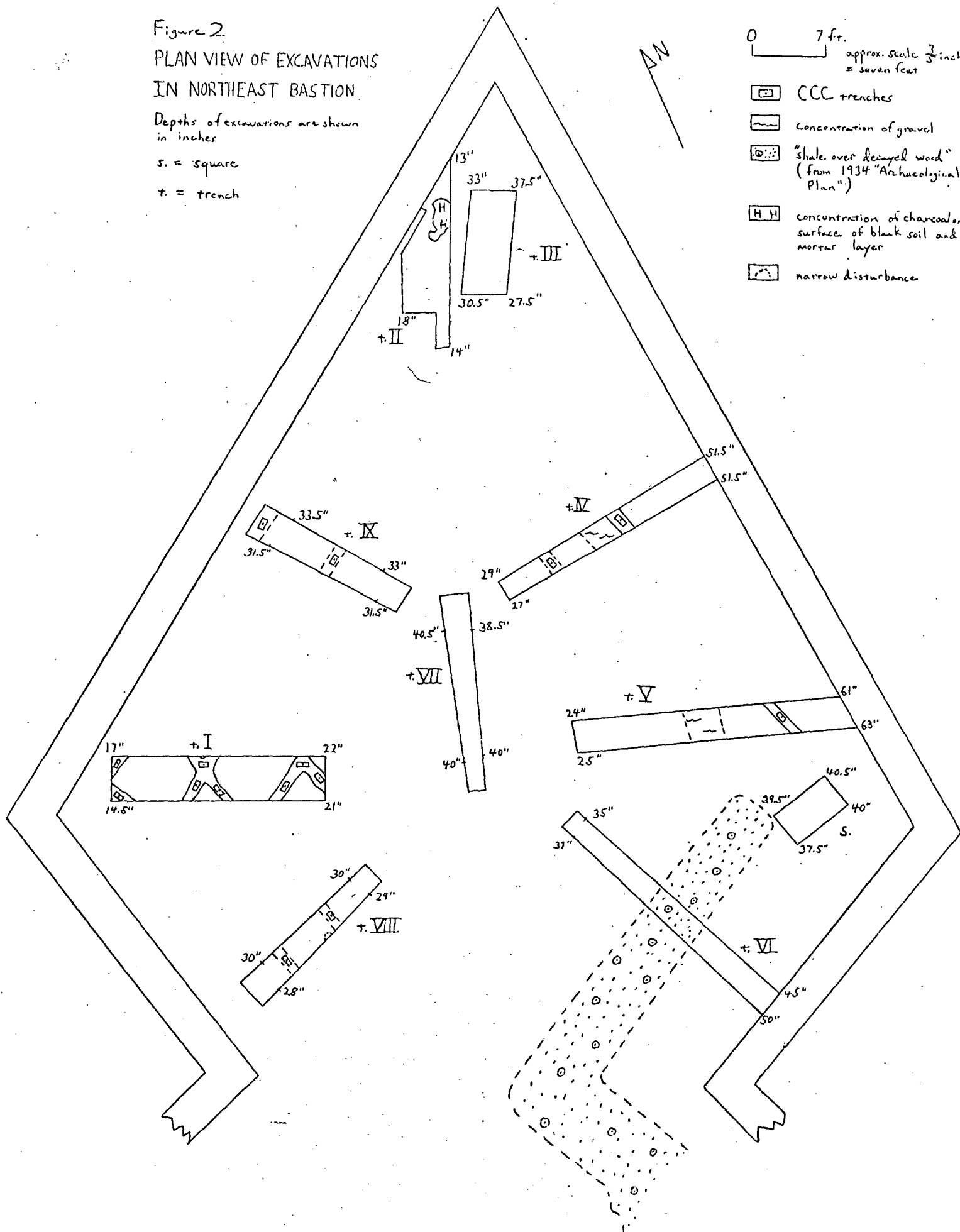
Depths of excavations are shown
in inches

s. = square

t. = trench

0 7 ft.
approx. scale $\frac{3}{4}$ inch
= seven feet

-  CCC trenches
-  concentration of gravel
-  "shale over decayed wood"
(from 1934 "Archaeological
Plan")
-  concentration of charcoal on
surface of black soil and
mortar layer
-  narrow disturbance



mament reference points on each bastion's existing walls. Each reference point consisted of the point of intersection of two existing bastion walls. Measurements with a steel tape were then taken from two of these permanent points to each of two of the trenches' and squares' corners. Features and some artifacts were located by measuring from them to a corner of the trench or square in which they were found.

Vertical measurements for two of the northeast bastion's trenches and one in the southwest bastion were determined by first finding a permanent horizontally oriented object. In the northeast bastion the extreme northeast corner of the existing well base and the extreme northeast corner of the existing east "soldiers' barrack" foundation were used as reference points. In the southwest bastion the bottom northeast corner of the existing flagpole was used. A length of pipe was then driven into the ground immediately adjacent to the object. A cord was then attached to the pipe at an arbitrarily selected point and the height between the cord and object recorded. The cord was then extended to the vicinity of the trench to be measured while being kept level with a line level. At this point the cord was attached to another pipe placed next to the trench at the same height as the first pipe. Vertical measurements were then taken by simply measuring down from the extended cord to the desired point. Because time was short, this type of measuring could not be done at the other trenches and squares.

Records of the excavations are in the form of written notes, measured and unmeasured drawings, and photographs. The photographs include 35mm color transparencies, 35mm black and white and $2\frac{1}{4}$ x $2\frac{1}{4}$ black and white negatives.

All the squares in both bastions and trenches I, II, and III in the northeast bastion were completely excavated by hand using shovels, trowels and whisk brooms. In these squares the soil was removed by actual layers rather than arbitrary levels. Only a limited amount of hand removed soil was sifted through $\frac{1}{4}$ inch mesh screen, as sifting was considered valuable only in recovering artifacts to date layers not already dated by in situ artifacts.

All other trenches were either wholly or almost completely excavated with a backhoe. Once the initial backhoe cuts were made for each trench, the trench bottom and walls were cleaned by hand to reveal the stratigraphy. Trenches IV, V and VI in the northeast bastion and trench C in the southwest were extended by hand at both ends. In these extensions the soil was removed by actual layer. In the backhoe excavated trenches controlled artifact samples were found either in the hand excavated areas or protruding from the trench walls. Some of the excavated soil from these trenches was sifted by Maryland Park Service personnel when they backfilled the trenches in November and December; any artifacts which they may have recovered have not been examined by the author of this report.

PRELIMINARY COMMENTS ON THE
DESCRIPTION AND INTERPRETATION OF FINDINGS
IN THE TWO BASTIONS

Because the archaeological record seems clearer in the southwest bastion, the findings there will be described before those in the northeast. The findings are presented by layer, beginning with the most recent. Unless otherwise noted, the date range noted for each artifact refers to the period during which artifacts of that type were manufactured. When reliable sources differ as to dates, several ranges are given. Those artifacts recovered from the backhoe dirt or whose layer is uncertain are not described in this report but are listed in the field notes and catalog.

Artifacts manufactured and used over a long time range are assumed to date from the latter part of the range. The references used to identify the artifacts are listed in appendix 2.

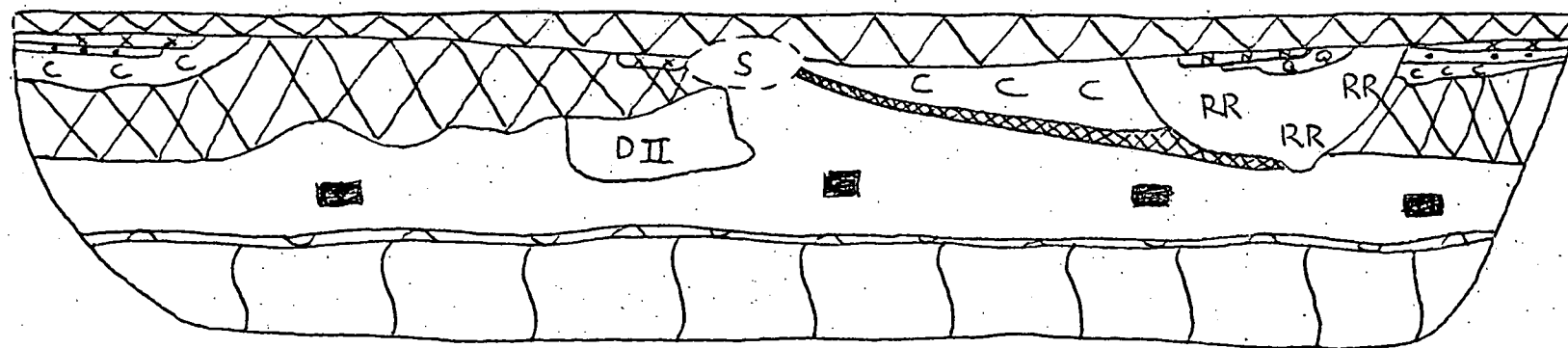
SW BASTION TRENCH A

figure 3

Each pair of dates refers to the period sometime during which a given layer was deposited.

0 2 ft.
approx. scale one inch = two feet

northwest trench wall



topsoil layer (1934-1937?)

concrete lens (1934?-1937?)

orange lens (1934?-1937?)

disturbance I (1934?-1937?)

fill layer (1756-1937?)

occupation layer (1756-c.1770)

stone removed by backhoe

orange and yellow soils layer (1756-c.1770)

light brown soil with greyish tint layer (1756-c.1770)

disturbance II (1756-c.1770)

light to medium brown soil layer (1756-c.1770)

organic lens (before 1756?)

undisturbed subsoil layer (before 1756?)

DESCRIPTION AND INTERPRETATION OF
FINDINGS IN THE SOUTHWEST BASTION

Topsoil Layer (see figures 3-10)

Description

This includes the present turf and consists of a relatively homogeneous blackish soil. It is identical to that found in the northeast bastion (see p.40) and was found in all the trenches and squares excavated in the southwest bastion. It was the only layer removed from squares 3 and 4 in the southwest bastion.

The most closely datable artifacts recovered from this layer include:

- | | |
|----------|--|
| Glass | 3 pieces of probable 19th or 20th century uncolored glass (one with molding)
1 piece of an olive green round bottle c.1740-1820's |
| Metal | 1 piece of 19th or 20th century barbed wire
4 1850's-20th century iron wire nails
1 machine cut iron nail apparently of the c.1830-20th century type
4 definite and 1 probable 1700-c.1850 hand wrought iron nails (1 with T head, 3 with rose head, the other head uncertain) |
| Ceramics | 1 sherd of American grey saltglazed stoneware with Albany slip interior c.1800-20th century
1 sherd of creamware 1760's-c.1850
1 sherd of a teapot cover in British white saltglazed stoneware (c.1730-1770 or c.1720's-1770's) or less likely British scratch blue stoneware (c.1740-1770 or c.1750-1775)
3 sherds of delftware, almost certainly 18th century British |

Artifacts assumed to have been made in the 18th, 19th and/or 20th centuries and natural items include:

- | | |
|----------|--|
| Glass | 1 piece of opaque white glass
4 pieces of uncolored glass (two with molding)
1 piece of light green glass |
| Metal | 1 piece of iron (possibly wire)
1 piece of iron (apparently a nail)
1 iron square nail (method of manufacture unknown) |
| Ceramics | 1 sherd of porcelain
7 sherds of brown glazed redware
1 sherd of carmel glazed redware |

Miscellaneous 65 pieces of uncooked bone (2 with butchering marks evident)
 5 teeth and jaw pieces
 1 piece of cooked bone
 5 pieces of unglazed brick
 1 piece of glazed brick
 32 pieces of mortar
 7 pieces of concrete or mortar
 2 pieces of stone with mortar adhering
 1 piece of clay pipe stem

Additional Comments

A large number of pieces of mortar were found in square 4. An 1850's-20th century iron wire nail was found at the juncture of the topsoil layer with the mortar and stone concentration next to the outer wall in trench C (also see p.20). A piece of concrete or mortar of either 18th, 19th or 20th century date was found at the juncture of the topsoil and orange and organic soils layers in square 2 (also see p.32). A sherd of delftware (almost certainly 18th century British); a sherd of British white saltglazed stoneware c.1730-1770 or c.1720's-1770's; a 1700-c.1850 hand wrought iron nail, apparently headless; and a piece of iron of unknown function were found at the juncture of the topsoil and mixed soils layer with much brick in trench E (also see p.27). An iron wire nail of 1850's-20th century date was found at the juncture of the topsoil and brown soil and brick layers in trench C (also see p.13).

Interpretation

The fact that this layer covers the CCC test trenches (see p.14) excavated in 1934 (Schindel 1934: 2) indicates that it can date no earlier than 1934. The mixture of 18th, 19th and/or 20th century artifacts plus the traces of several different soils in this layer indicate that the topsoil was probably deposited by the CCC as backfill sometime between 1934 and 1937 (Bastian 1973a: 2, 3; Bastian 1970: 12).

The large amount of mortar found in square 4 could have eroded out of the existing bastion wall or could have been removed from this wall while it was being repaired. The artifacts found at the juncture of the topsoil with underlying layers were dropped either before or during the deposition of the topsoil layer.

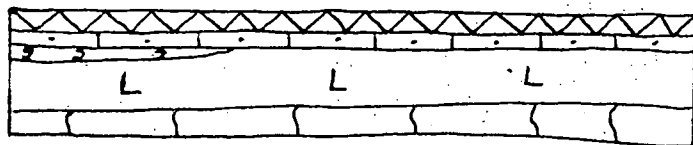
SW BASTION TRENCH B

figure 4

Each pair of dates refers to the period sometime during which a given layer was deposited.

○ 5 ft.
approx. scale one inch = five feet

southeast trench wall (from west corner of square 1 to south corner of the trench)



- ▨ topsoil layer (1934-1937?)
- ▤ subsoil fill layer (1934-1937?)
- ▥ mixed layer (1934-1937?)
- ▧ trash layer (1756-c.1770)
- ▩ undisturbed subsoil layer (before 1756?)

NOTE: This drawing is based only on a very rough field sketch which showed only the most readily apparent soil conditions.

Pit-like Disturbance and Associated Layers
in Trench C (see figure 5)

Descriptions

A pit-like disturbance 80 inches from the north end of the trench contains a predominately brown soil fill. Lack of time made it impossible to obtain accurate measurements of this disturbance. Two pieces of unglazed brick of 18th, 19th or 20th century date, a piece of uncooked bone, and an iron nail with rose head (apparently hand wrought and thus 1700-c.1850) were found in this fill. The pale yellow soil layer contains traces of organic material of unknown nature; no artifacts were found. The brown soil and brick layer is composed of a brown soil containing some brick fragments. Artifacts recovered include six unglazed brick fragments of 18th, 19th or 20th century date, three pieces of bone, and one hand wrought iron nail with a T head (1700-c.1850). The trash deposit consists of a dark brown soil containing many brick fragments and pieces of charcoal. No artifacts were recovered from it. The deep yellow subsoil layer contained no artifacts.

Interpretations

The brown soil and brick layer could have been deposited after or during the creation of the pit-like disturbance, but the fact that it occurs at the same depth as the pale yellow soil layer would seem to indicate that it, like the pale yellow soil layer, was deposited before the pit-like disturbance was excavated. The fact that the topsoil is found under, as well as above the deep yellow subsoil layer does indicate that the disturbance and four deposits were deposited after a portion of the topsoil had been deposited. Thus all five deposits definitely date no earlier than 1934 and probably no later than 1937. The purpose of the pit-like disturbance is unknown. The trash deposit could represent a single instance of garbage disposal, perhaps by burning as indicated by the charcoal. The other deposits could have been deposited for levelling purposes.

Concrete and Stone; Subsoil Fill Layer; Mixed Layer (see figures 4, 7 and 9)

Descriptions

The concrete and stone deposit consists of small flat stones cemented together with concrete or mortar creating a level surface beneath the topsoil in the northeast corner of square 1. Scattered pieces of concrete or mortar were found in the rest of the square at the same depth and some of these were recovered. The subsoil fill layer was found in square 1 and trenches B and E. It consists of an apparent subsoil of yellow color containing some organic material of unknown origin. No artifacts were recovered from this layer. The mixed layer, found in square 1 and trench B, consists of a mixture of the subsoil fill layer and the trash layer (see p.29). This mixture sometimes occurs in the form of lenses. Artifacts recovered from this layer include: a piece of glazed brick, 1 small iron object of unknown function (both of 18th, 19th or 20th century date), 1 sherd of British scratch blue stoneware (c.1740-1770 or c.1750-1775), 9 pieces of clay pigeon assumed to be of 19th or 20th century date and 1 piece of tooth.

Interpretations

The fact that all these deposits overlies the CCC trenches (see below) indicates that all three date no earlier than 1934. The function of the concrete and stone deposit is unknown, but it appears to have been deposited deliberately for some structural purpose. The subsoil fill and mixed layers could have been deposited as CCC backfill from their excavations. The subsoil fill layer is probably analogous to the subsoil fills found in the northeast bastion (see p.43).

CCC Trenches; CCC Trench Fill (see figures 5 and 9)

Descriptions

These are trench-like disturbances found in squares 1 and 4 and trench C. The fills are composed of a mixture of apparent subsoil and/or organic material of unknown nature and soil from layers deposited before the CCC trenches were

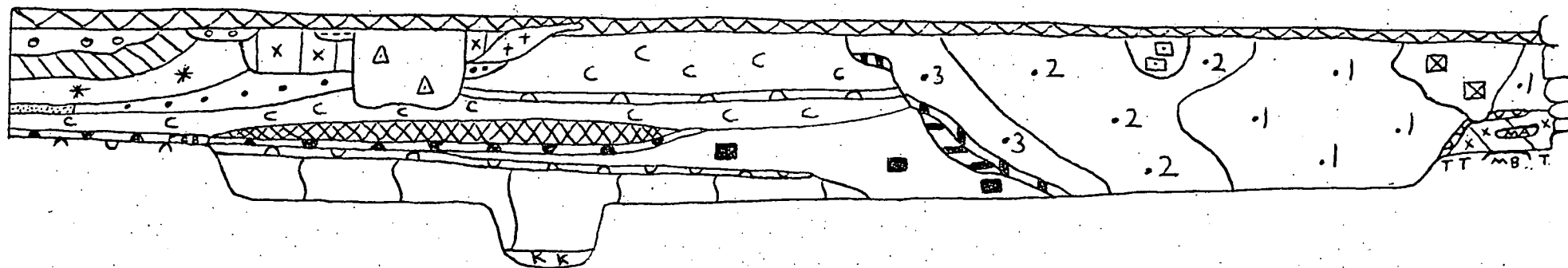
SW BASTION TRENCH C

figure 5

Each pair of dates refers to the period sometime during which a given layer was deposited.

0 3 ft.
approx. scale one inch = three feet

southeast trench wall.



W topsoil layer (1934-1937?)

A pit-like disturbance 80 inches from north end of trench

--- pale yellow soil layer

ooo brown soil and brick layer

X X trash deposit

++ deep yellow subsoil layer

☒ mortar and stone concentration next to outer wall (1756-1934?)

CCC trench (1934)

.1 medium brown soil with mortar and stone layer

pit-like disturbance and associated layers in trench C (1934-1937?)

.2 medium brown soil layer

.3 medium brown with yellow tint layer

O organic deposit

≡ orange soil layer

UU brick red soil layer

X X light brown predominating soil layer

MA mortar lens A















TT traces of organic

MB mortar lens B

very large pit-like disturbance near outer wall and associated layers in trench C (1756-1934)

brick red soil layer and associated layers in trench C (1756-1934)

SW BASTION TRENCH C figure 5 (continued)

-  garbage layer (1756-c.1770)
-  pale yellow subsoil fill layer (1756-c.1770)
-  occupation layer (1756-c.1770)
-  brown soil lens (1756-c.1770)
-  orange and yellow soils layer (1756-c.1770)
-  organic layer (1756-c.1770)
-  light brown soil with greyish tint layer (1756-c.1770)
-  occupation lens (1756-c.1770)
-  charred board (1756-c.1770)
-  light to medium brown soil layer (1756-c.1770)
-  organic lens (before 1756?)
-  undisturbed subsoil layer (before 1756?)
-  hard pan (before 1756)
-  existing bastion wall stones

excavated.

The most closely datable artifacts recovered from this fill include:

Glass	1 piece of 1700-c.1820's olive green glass
Metal	2 1700-c.1850 hand wrought iron nails (one with head uncertain, the other with a T head)
Miscellaneous	4 pieces of clay pigeon assumed to be of 19th or 20th century date

Artifacts assumed to have been made in the 18th, 19th and/or 20th centuries and natural items include:

- 19 pieces of unglazed brick
- 4 pieces of glazed brick
- 1 piece of stone with mortar adhering
- 2 pieces of cooked bone
- 16 pieces of uncooked bone
- 2 pieces of slate or shale
- 1 piece of clay pipe stem
- 1 piece of redware with brown glaze
- 2 iron square nails (method of manufacture unknown)
- 1 iron object of unknown function

Interpretations

These disturbances have been identified as test trenches excavated by the CCC in 1934 (Schindel 1934: 2) on the basis of their similarity in dimension and fill composition to known CCC test trenches in the northeast bastion.

Disturbance I; Orange Lens; Concrete Lens (see figure 3)

Descriptions

All three deposits were found in trench A. The disturbance is pit-like with a fill of medium brown soil containing pieces of brick and slate or shale. It has a maximum visible depth of 15 inches and a length of 33 inches. The width is unknown, but no indication of the disturbance was found in the opposite wall of the trench. The disturbance is partially covered by the orange lens composed of apparent subsoil containing traces of organic material of unknown origin and yellow soil. The concrete lens, a thin deposit of concrete or mortar, was found immediately above the orange lens and also partially seals the mouth of the disturbance. No artifacts were recovered.

Interpretations

The age of these three deposits is uncertain, but they seem to date no earlier than 1934 based on the similarity between disturbance I and the pit-like disturbance 80.5 inches from the north trench end in trench C. The function of disturbance I is unknown, but its geometric configuration indicates that it is man made. The position of the orange and concrete lenses relative to disturbance I indicates that they might have been deposited to help fill and level off this disturbance.

Yellow Soil Layer (see figure 10)

This layer found in square 2 consists of an apparent subsoil containing organic material of unknown nature and shale or slate fragments. There are some gaps in this layer which expose the layers immediately below it. No artifacts were recovered.

This layer definitely dates no earlier than 1756, the earliest known non-aboriginal occupation of the site (Bastian 1970: 2). It may date no earlier than 1779 based on an artifact found in the underlying trash concentration (see p.24). The layer could have been deposited for levelling purposes or to cover the garbage represented by the trash concentration.

Fill Layer (see figure 3)

This layer found in trench A consists of a light to medium brown soil containing spots of organic material of unknown nature, yellow soil, and a few pebbles. No artifacts were found.

This layer was deposited no earlier than 1756 and no later than 1937 based on its position relative to the other deposits in the trench. It is not clear whether this was deposited by nature or by man. If deposited by man, this layer could have been deposited for levelling purposes or to cover the garbage represented by the occupation layer.

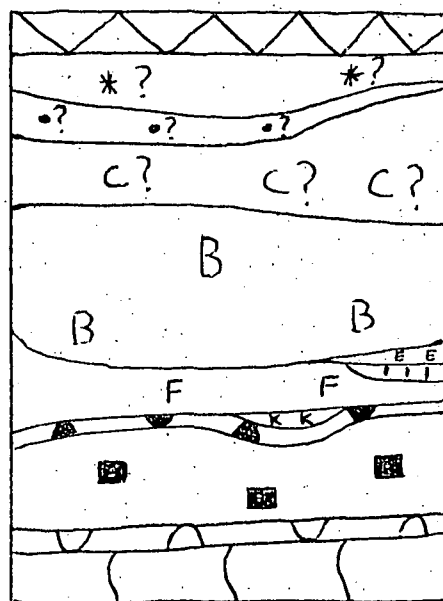
SW BASTION TRENCH D

figure 6

Each pair of dates refers to the period sometime during which a given layer was deposited.

0 1 ft.
approx. scale one inch = one foot

northeast trench wall



- | | | | |
|--|---------------------------------------|--|---|
| | topsoil layer (1934-1937?) | | light to medium brown soil layer (1756-c. 1770) |
| | pale yellow subsoil fill layer? | | organic lens (before 1756?) |
| | occupation layer? | | undisturbed subsoil layer (before 1756?) |
| | orange and yellow soils layer? | | |
| | brick layer | | |
| | pale yellow and bright orange layer | | |
| | organic spot | | |
| | orange, pale yellow and organic layer | | |
| | pale yellow spot | | |
| | occupation lens (1756-c. 1770) | | |
- } brick layer and associated layers in trench D

Mortar and Stone Concentration Next to Outer Wall (see figure 5)

This deposit was found in trench C and consists of a concentration of mortar and stone fragments with mortar adhering. No artifacts were recovered.

This deposit seems analogous to the black soil and mortar and brown soil and mortar layers in the northeast bastion (see pp. 54&55). If this is the case, this deposit would pre-date 1934. The deposit's position relative to the other deposits in trench C indicates a post-1756 deposition date. The mortar and stones were probably originally part of the existing bastion wall based on their similarity to those still in this wall. They apparently either eroded from the wall or were deliberately removed from it.

Very Large Pit-like Disturbance Near Outer Wall
and Associated Layers in Trench C (see figure 5)

Descriptions

The disturbance was found immediately adjacent to the existing bastion wall. It has a maximum visible length and width of $13\frac{1}{2}$ feet and 50 inches respectively. The maximum visible depth is 29 inches. It is filled with five different deposits. The medium brown soil layer is a very homogeneous medium brown soil with fragments of charcoal, brick and bone present. The medium brown soil with mortar and stone layer's soil is identical to that of the preceding layer but includes mortar, brick and stone with mortar adhering which becomes more concentrated towards the existing bastion wall. The medium brown with yellow tint layer is a yellowish medium brown soil containing spots of yellow soil, organic material of unknown nature and charcoal. The organic deposit is a thin lens of organic material of unknown nature with some gaps. The orange soil layer is a small deposit of apparent subsoil. The only artifacts recovered from any of these deposits were a glazed brick fragment and three unglazed brick fragments (all of 18th, 19th or 20th century date) from the medium brown soil with mortar and stone layer.

Interpretations

The disturbance and all five inclusive deposits, based on their position

relative to the other deposits in trench C, date from sometime between 1756 and 1934. The deposition of the medium brown soil and medium brown soil with mortar and stone layers occurred after the medium brown with yellow tint layer was deposited. The homogeneity and color of all three layers indicate that they were probably deposited by man to fill the disturbance. The organic deposit appears to be a natural deposit based on its parallel orientation to the immediately underlying deposits, thinness, homogeneity, relative looseness, and small particle size. The organic deposit would thus indicate that the disturbance was open for some time before being filled. The orange soil deposit may be orange and yellow soils layer soil (see p. 33) which eroded into the disturbance before the organic deposit was formed.

The function of the disturbance is uncertain. It was probably not dug for garbage disposal as little garbage is found in its fill. Perhaps it was excavated to expose the lower section of the existing wall for repair purposes. Another alternative is that it represents the remains of a structure built sometime between 1756 and 1934 which either had a cellar or was completely or partially subterranean.

If the disturbance does represent a structure it is conceivable that it is the remains of a powder magazine. The supplementary evidence for any powder magazine(s) in the fort is sparse and non-committal. The only primary documentary references consist of mention in 1758 to "magazines" already in existence at Fort Frederick and at a slightly later date to a "magazine" (whether it was in existence or not is not made clear) (Kimmel 1973: 21). Neither the number, location, permanence or impermanence, nor appearance of the magazine(s) is revealed by these two contradictory documents. By analogy with other French and Indian War forts, Fort Frederick should have had at least one powder magazine located in one of its bastions (Kimmel 1973: 21-22). There are, however, exceptions to every rule, and this evidence is thus rather equivocal.

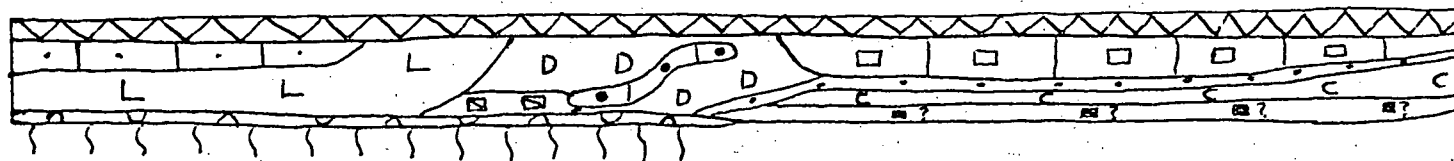
SW BASTION TRENCH E

figure 7

Each pair of dates refers to the period sometime during which a given layer was deposited.

0 5 ft.
approx. scale one inch = five feet

southeast trench wall



topsoil layer (1934-1937?)

subsoil fill layer (1934-1937?)

trash layer (1756-c.1770)

mixed soils layer with much brick (1756-c.1770?)

greyish medium brown soil layer (1756-c.1770?)

shale (1756-c.1770?)

dark brown soil layer (1756-c.1770?)

occupation layer (1756-c.1770)

orange and yellow soils layer (1756-c.1770)

light to medium brown soil layer?

organic lens (before 1756?)

undisturbed subsoil layer (before 1756?)

NOTE: This drawing is based only on a very rough field drawing which showed only the most readily apparent soil conditions.

Brick Red Soil Layer and Associated Layers
in Trench C (see figure 5)

Descriptions

The brick red soil layer consists of an apparent subsoil of brick red color containing some brown soil and stream pebbles and larger stones. The light brown predominating soil layer consists of a light brown soil containing some yellow and brownish orange soil and traces of charcoal and mortar from mortar lens A (see below). This layer surrounds mortar lens A. No artifacts were recovered from either layer. Mortar lens A consists of a thick and solid lens of whitish mortar not connected to the existing bastion wall but immediately adjacent to it. Four pieces of mortar of either 18th, 19th or 20th century date were recovered from this deposit. The traces of organic deposit consists of a thin lens of organic material of unknown nature with a number of gaps in it. No artifacts were recovered from it or from mortar lens B which seems identical to mortar lens A in all respects.

Interpretations

Based on their position relative to the other deposits in trench C, all five deposits were deposited sometime between 1756 and 1934. The brick red soil and light brown predominating soil layers appear to have been deposited by man but for what purpose is unknown. This interpretation is based on the fact that their colors differ from those of surrounding layers which indicates that they could not have been deposited as the result of erosion or some other natural action on soil already in the bastion. Furthermore, the layers' configuration and orientation to surrounding deposits simply appear unnatural. The traces of organic were probably deposited by nature, based on their thinness, homogeneity, small particle size, parallel orientation to the underlying deposit, and relative looseness. The mortar lenses could represent waste mortar used in the repair or even initial construction of the existing bastion wall or could have some structural significance. These lenses are apparently analogous to the mortar lenses found in trenches V and VI in the northeast bastion (see p. 63).

Trash Concentration (see figure 10)

This deposit found in square 2 consists of medium brown soil containing a mixture of charcoal, organic material of unknown nature and yellow and orange soils. Artifacts definitely recovered from this layer include a sherd of white earthenware of 1779-c.1850 date, a pocketknife of a type found in 1758-1766 and 1776-1783 archaeological contexts, and a "musket" ball of approximately .69 inches diameter of 1700-late 19th century date.

This is definitely a deposit of garbage. The sherd of white earthenware could have intruded through the yellow soil layer into the trash concentration at some point in time before the present excavations were conducted. If this were the case the trash concentration would most likely date from sometime in the 1756-c.1800 period. If the white earthenware sherd is not intrusive the deposit would date no earlier than 1779 and probably no later than c.1850.

Pale Yellow and Organic Soils Layer (see figure 10)

This layer in square 2 consists of an apparent subsoil of pale yellow color containing much organic material of unknown nature and grey soil. No artifacts were recovered.

This layer seems to have been deliberately deposited to cover the garbage in the garbage layer. The layer's position relative to the trash concentration and garbage layer (see below) indicates that this was deposited sometime between 1756 and c.1800 or 1756 and c.1850.

Garbage Layer (see figures 5 and 10)

Description

This layer found in trench C and square 2 consists of a medium brown soil containing yellow, orange and black soils, a large number of brick fragments, and some ash and charcoal.

The most closely datable artifacts recovered from this layer include:

Glass	2 pieces of olive green glass of the 1700-1820's period
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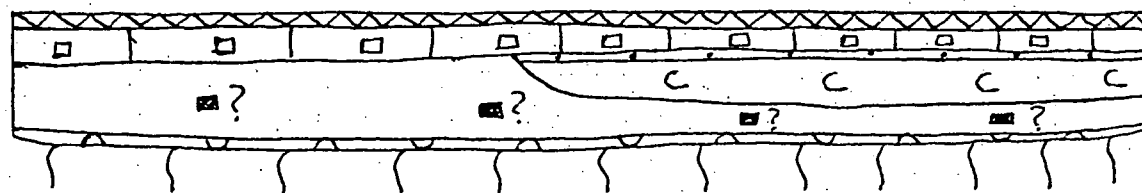
SW BASTION TRENCH F

figure 8

Each pair of dates refers to the period sometime during which a given layer was deposited.

0 5 ft.
approx. scale one inch = five feet

southeast trench wall



- topsoil layer (1934 - 1937?)
- mixed soils layer with much brick (1756 - c. 1770?)
- occupation layer (1756 - c. 1770)
- orange and yellow soils layer (1756 - c. 1770)
- light to medium brown soil layer?
- organic lens (before 1756?)
- undisturbed subsoil layer (before 1756?)

NOTE: This drawing is based only on a very rough field sketch which showed only the most readily apparent soil conditions.

- | | |
|---------------|---|
| Metal | 19 hand wrought iron nails of the 1700-c.1850 period (11 with rose heads, 1 apparently headless, 7 with heads obscured or apparently missing)
1 machine cut iron square nail of the c.1830-20th century period |
| Ceramics | 2 sherds of delftware, almost certainly of 18th century British manufacture
2 sherds of British white saltglazed stoneware c.1730-1770 or c.1720's-1770's |
| Miscellaneous | 1 "musket" ball of approximately .72 inches diameter (1700-late 19th century)
3 straight pins (1700-early 19th century) |

Artifacts assumed to have been made in the 18th, 19th and/or 20th centuries and natural items include:

- 42 pieces of unglazed brick (1 with mortar still adhering. This mortar seems identical to that found in the trash layer in square 1.)
- 10 pieces of glazed brick
- 10 pieces of slate or shale
- 3 pieces of cut stone
- 1 piece of possible limestone with mortar still adhering (This mortar seems identical to that found in the trash layer in square 1.)
- 3 pieces of mortar (apparently identical to that found in the square 1 trash layer)
- 2 pieces of charcoal
- 25 pieces of cooked bone
- 9 pieces of teeth and jaws
- 111 pieces of uncooked bone (1 piece with apparent butchering marks)
- 2 clay pipe bowl fragments
- 1 piece of clay pipe stem
- 15 square iron nails (method of manufacture uncertain)

Interpretation

This layer is definitely a deposit of garbage. Although the artifact sample is too small to indicate a deposition date with absolute certainty, the closely datable artifacts do point to a deposition date of sometime between 1756 and c.1770. The c.1770 end date is based on the presence of delftware and white saltglazed stoneware and the apparent absence of creamware in this deposit. (Miller and Stone 1970: 42, 44). The machine cut square nail is assumed to be intrusive.

The many pieces of brick found in this deposit may be an important dating clue. The use of brick in the original construction of the fort is indicated by the brick features uncovered by the CCC in front of the west barracks and Captain Beall's letter of September 10, 1756 (Bastian 1970: 4, 14). Sometime

after the military abandoned the fort in 1758 settlers moved in, and in 1762 were reported to be destroying the "fort and improvements" (Bastian 1970: 6). It is possible that the brick fragments found in the garbage layer are a result of this destruction. While only the fragment with mortar still adhering had obviously been removed from some structure, the other fragments could be from some structure such as a walk in which mortar was not used. The bone and other garbage surrounding the individual brick fragments indicates that all of the brick has been disturbed. However, it is not known whether this brick was brought from a structure outside the bastion and dumped in its present location or is from a structure in the bastion itself. It is even conceivable that a structure was located exactly where the brick fragments have been found. This theoretical structure could just as well be a powder magazine as anything else.

Finally, the apparent pre-Revolutionary War deposition date of both the trash and garbage layers plus an eyewitness account of 1778 (Hughes: 2) seem to argue against there having been an earth fill completely filling the southwest bastion in the 1756-1758 period as suggested by Mr. Emil Kish, Architect, because it is believed that not until the Revolution did a reason exist for removing such a fill (Kimmel 1973: 20, Appendix B). However, it is conceivable that the theoretical earth fill was partially removed before the Revolution and that the orange and yellow soils layer, light brown soil with greyish tint layer and perhaps the light to medium brown soil layer represent the remnants of this fill. (see pp. 33, 36 & 37).

Mixed Soils Layer with Much Brick (see figures 7 and 8)

This layer was found in trenches E and F and square 5. No artifacts were recovered. Because this layer is almost identical in appearance to the garbage layer in trench C and square 2 it is very possible that these layers are one in the same or that the mixed soils layer with much brick is at least nearly or actually contemporaneous with the garbage layer.

SW BASTION SQUARE 1

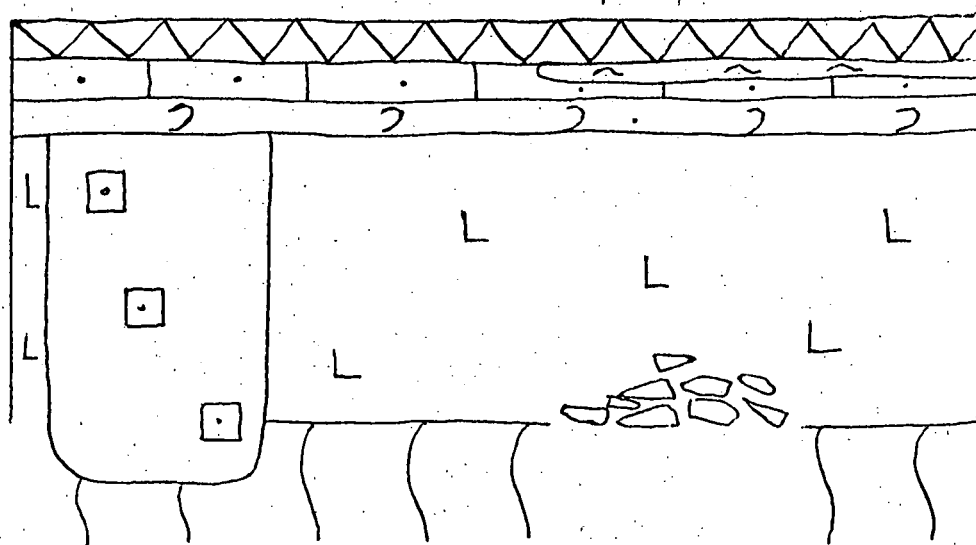
figure 9









Each pair of dates refers to the period sometime during which a given layer was deposited.



approx. scale one inch = one foot

Three feet from northeast wall of square (looking north)



-  topsoil layer (1934-1937?)
-  concrete and stone (1934-1937?)
-  subsoil fill layer (1934-1937?)
-  mixed layer (1934-1937?)
-  CCC trench (1934)
-  trash layer (1756-c. 1770)
-  shale deposit (1756 - c. 1770)
-  undisturbed subsoil layer (before 1756?)

Pale Yellow Subsoil Fill Layer (see figures 5 and 6)

This layer found in trench C and apparently in trench D (see the interpretation of the trench D brick layer, p. 34) consists of an apparent subsoil of pale yellow color containing spots of organic material of unknown nature, brown and brownish orange soils and traces of charcoal and brick. In the bottom of this layer in trench C several dozen shale or slate fragments were found; several samples were saved along with one piece of 18th, 19th or 20th century unglazed brick.

The fact that this layer is apparently subsoil and thus disturbed soil, that the layer's extent and differing color from surrounding deposits indicate the soil could not have been deposited by natural action on soils either outside or in the bastion, and the presence of the artifact all suggest that the layer was deposited by man but for what purpose is unknown. Based on its position relative to the trench C garbage layer, this layer was deposited sometime between 1756 and c.1770.

Trash Layer; Shale Deposit (see figures 4, 7 and 9)

Descriptions

This layer found in trenches E and B and square 1 consists of a dark greyish brown soil containing a large number of brick fragments with other artifacts surrounding the individual fragments. Almost at the bottom of this layer in square 1 a deposit of shale or slate was uncovered. This deposit has a maximum visible length and width of 35 and 22 inches respectively. The maximum visible depth is approximately 4 inches. No artifacts were found under the small sections of this deposit which were removed. These sections were then replaced. A number of artifacts were recovered from the trash layer. They include:

Ceramics

- 1 sherd of British, German or American brown or grey stoneware
- 1 sherd of a Westerwald stoneware mug c.1714-c.1760
- 2 sherds of British scratch blue stoneware (1 from a tea bowl)
c.1740-1770 or c.1750-1775
- 3 sherds of British white saltglazed stoneware (1 probably from a
mug or posset cup) c.1730-1770 or c.1720's-1770's
- 1 sherd of either British scratch blue or white saltglazed stoneware
- 29 sherds of delftware, almost certainly British
- 6 sherds of redware, probably British or American (3 sherds with
olive green glaze, 2 with brown glaze and 1 unglazed) One of

the brown glazed sherds is probably from a mug.
 7 sherds of Chinese export porcelain (2 sherds were manufactured in the c.1725-1775 period and one in the 1736-1795 period. 4 sherds are from tea bowls and another most likely from a plate.)

Glass

- 1 piece of window glass
- 1 glass jewel used in cuff links and rings
- 2 pieces of green glass (One is from an American or British octagonal bottle. The other is from some sort of square cornered object.)
- 7 pieces of olive green glass (One is from a wine or bottled fruit bottle. Five others are most likely from some sort of round bodied bottles. They could be of British, French or American manufacture.)

Metal

- 3 pieces of lead of unknown function
- 1 two piece coat size metal button (The shank was cast integrally with the button back and the eye drilled.)
- 1 thin rectangular piece of iron of unknown function
- 1 possible iron firearm sear fragment
- 3 unidentifiable pieces of iron
- 34 hand wrought square iron nails with rose heads
- 2 hand wrought square iron nails with T heads
- 10 hand wrought square iron nail fragments with head section missing
- 3 square iron nails with rose heads assumed to be hand wrought

Miscellaneous

- 2 French gunflints (One is a "musket" flint and the other may be a "rifle" flint.)
- 1 small size one-hole bone button
- 5 pieces of clay pipe bowl, 2 clay pipe mouthpieces, 12 clay pipe stem fragments, 2 clay pipe stem and bowl fragments (All are probably of British origin.)
- 11 pieces of uncooked bone with butchering marks evident
- 298 pieces of uncooked bone with no butchering marks evident
- 9 pieces of cooked bone
- 56 pieces of unglazed brick, one with mortar still adhering
- 32 pieces of glazed brick, 3 with mortar still adhering
- 4 pieces of mortar
- 3 pieces of cut stone, 2 with mortar still adhering
- 3 pieces of possible limestone
- 25 pieces of slate or shale
- 1 piece of slag
- 2 pieces of fossilized sponge

Interpretations

The trash layer is definitely a deposit of garbage. The artifacts indicate that deposition occurred sometime between 1756 and c.1770 (Artifacts not assigned a period of manufacture are typologically consistent with the date assigned to the deposit). As with the garbage layer, the c.1770 date is based on the lack of creamware and presence of Westerwald stoneware, British scratch blue and white saltglazed stoneware and delftware. Again as with the garbage layer, the large

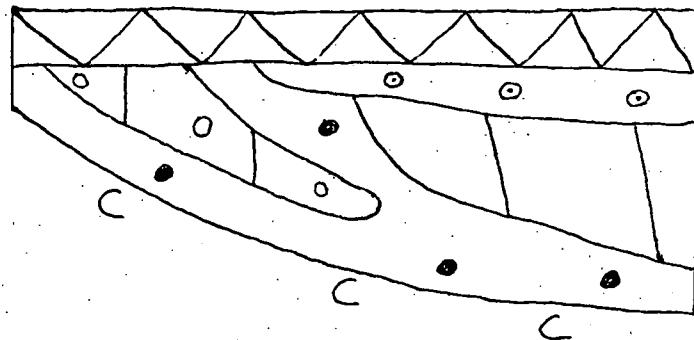
SW BASTION SQUARE 2

figure 10

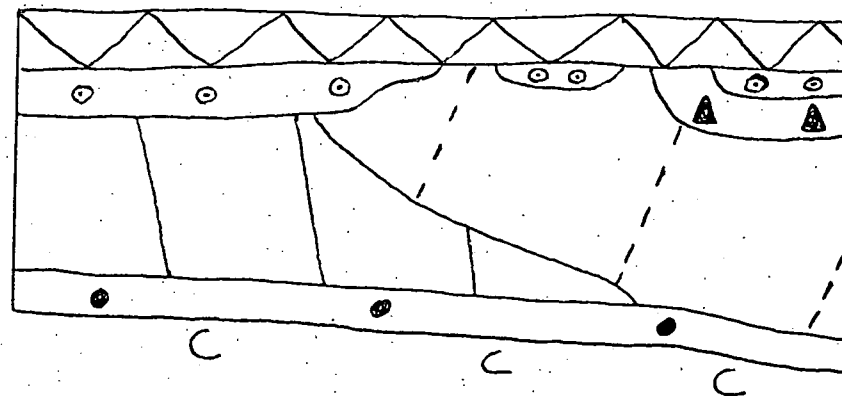
Each pair of dates refers to the period sometime during which a given layer was deposited.









0 1 ft.
approx scale one inch = one foot

southwest wall of square



northwest wall of square



-  topsoil layer (1934-1937?)
-  yellow soil layer (1756?-1937?)
-  trash concentration (1756-c.1800?) OR (1779-c.1850?)
-  pale yellow and organic soils layer (1756-c.1800?) OR (1756-c.1850?)
-  garbage layer (1756-c.1770)
-  orange and organic soils layer (1756-c.1770)
-  occupation layer (1756-c.1770)
-  orange and yellow soils layer (1756-c.1770)

number of brick fragments may be the result of the destruction of a nearby structure (possibly even located exactly where the bricks were found) by settlers sometime in the c.1758-1762 period. The apparent lack of artifacts under the shale deposit indicates that it too could be the remains of some sort of structure, although it could also indicate that the shale or slate was simply the first garbage deposited in that area.

Greyish Medium Brown Soil Layer;

Shale; Dark Brown Soil Layer (see figure 7)

Descriptions

All these deposits were found in trench E. The shale (or slate) deposit, which in cross section is in the form of an elongated S, is found within, and completely surrounded by, the greyish medium brown soil layer. A lack of time made it impossible to obtain the measurements of the shale. Beneath these two deposits the dark brown soil layer was found. No artifacts were recovered from any of these deposits.

Interpretations

Based on their apparent position relative to the portion of the trash layer also found in trench E, all three deposits apparently were deposited sometime in the 1756-c.1770 period. It is not known if the dark brown soil layer was deposited by nature or, if by man, what its function was. The greyish medium brown soil was apparently deposited for some unknown purpose by man based on this layer's position relative to the shale or slate. Based on the similarity in their composition, this shale or slate could be related to the shale deposit in square 1 and could be the remains of some structure.

Occupation Layer; Orange and Organic Soils Layer (see figures 3, 5-8, and 10)

Descriptions

The occupation layer was found in square 2, trenches A, C, E, F and apparently in trench D (see interpretation of trench D brick layer, p.34). It consists

of a blackish grey soil containing scattered bits of ash, charcoal, brick and other artifacts. Artifacts recovered from this layer include: two sherds of British white saltglazed stoneware (c.1730-1770 or c.1720's-1770's), two pieces of cooked bone, one piece of uncooked bone and three pieces of charcoal.

The occupation layer surrounds the orange and organic soils layer in square 2. This layer consists of an apparent subsoil of orange color containing spots of yellow soil, organic material of unknown nature and some gravel. No artifacts were recovered from this deposit.

Interpretations

Both layers were deposited sometime in the 1756-c.1770 period based on their position relative to the trash layer and garbage layer. The occupation layer seems to be another deposit of garbage. The orange and organic soils layer could have been deliberately deposited to partially hide the garbage deposit apparently represented by the occupation layer or could be naturally eroded soil from an originally higher orange and yellow soils layer.

Brown Soil Lens (see figure 5)

This deposit found in trench C consists of a brown soil lens containing scattered brick fragments, three of which were recovered. No overlap between this deposit and the occupation layer could be seen.

The brown soil lens was deposited sometime between 1756 and c.1770 based on its position relative to the garbage layer. It is not known if this lens was deposited by nature, or if by man, for what purpose.

Orange and Yellow Soils Layer; Organic Layer (see figures 3, 5-8, and 10)

Descriptions

The orange and yellow soils layer was found in trenches A, C, E, F, square 2 and apparently in trench D (see the interpretation of the trench D brick layer p. 34). The layer consists of an apparent subsoil of orange color containing traces of brown and yellow soils and organic material of unknown nature. In

trench C a few pieces of charcoal and apparent ash were found in this layer. The organic layer, consisting of a thin lens of organic material of unknown nature, bisects this layer in trench C. No artifacts were recovered from either deposit.

Interpretations

These deposits' position relative to the garbage layer indicates that they were deposited sometime between 1756 and c.1770. The organic layer seems to have been deposited by nature based on its homogeneity, thinness, parallel orientation to the deposit immediately underneath, relative looseness, and small particle size. If the orange and yellow soils layer is composed predominately of disturbed subsoil, it would in all probability have been deposited by man, although for what reason is uncertain. Perhaps it and the light brown soil with greyish tint layer (see p. 36) were deposited to create a new grade for some structural purpose. It could, along with the light brown with greyish tint layer, be the remnants of the earth fill believed to have existed in the bastion in the 1756-1758 period.

Brick Layer and Associated Layers in Trench D (see figure 6)

Descriptions

The most recent of these deposits, the brick layer, consists of a mixture of brown and pale yellow soils with some organic material of unknown nature, charcoal and a large number of brick fragments. The pale yellow and bright orange layer is the next oldest and consists of a mixture of apparent subsoils of pale yellow and bright orange color. The organic spot is the next oldest deposit and consists of a small deposit of organic material of unknown nature. The next oldest layer, the orange, pale yellow and organic layer, consists of a mixture of pale yellow and bright orange apparent subsoils and organic material of unknown nature. The oldest of these deposits is the pale yellow spot consisting of a small deposit of pale yellow soil. No artifacts were recovered from any of these deposits.

Interpretations

It is uncertain whether the brick layer is a deposit found only in trench D

or simply a portion of the garbage layer and/or mixed soils layer with much brick found in other trenches and squares in the southwest bastion (see pp.24 & 27).

If the brick layer is a deposit found only in trench D, then the three layers found above it would be, as already suggested, the pale yellow subsoil fill layer, occupation layer, and orange and yellow soils layer found in other trenches and squares in the southwest bastion (see pp.29, 32, & 33).based on similar appearance to these layers and orientation to one another and the rest of the layers in trench D. In this case the pale yellow and bright orange layer, organic spot, orange, pale yellow and organic layer, and pale yellow spot would, like the brick layer, also be deposits found only in trench D based upon the fact that no similar or identical layers were found in the same orientation to the pale yellow subsoil fill layer, occupation layer, and orange and yellow soils layer in the other trenches and squares excavated in the southwest bastion.

On the other hand, if the brick layer is a portion of the garbage layer and/or mixed soils layer with much brick, then the three layers above the brick layer would actually be layers found only in trench D. These layers' uniqueness to trench D would be based on the fact that no identical or similar layers were found in the same orientation to the garbage and/or mixed soils layer with much brick in any of the other trenches or squares excavated in the southwest bastion. In this case, based on their color, composition and orientation to the garbage layer and/or mixed soils layer with much brick (brick layer), the pale yellow and bright orange layer would appear to be a layer not found in any other trench or square in the southwest bastion; the organic spot could actually be a portion of the occupation layer found in other southwest bastion trenches and squares; the orange, pale yellow and organic layer could actually be a portion of the orange and yellow soils layer found in other southwest bastion trenches and squares; and the pale yellow spot would appear to be a layer not found in any other trench or square in the southwest bastion.

The thinness, small particle size, and configuration (parallel to the immediately underlying deposits) of the pale yellow spot and organic spot indicate that

they were most likely deposited by nature. The fact that the pale yellow and bright orange layer is apparently composed of disturbed subsoils, the difference in its composition and color from those of the surrounding layers, and the orientation of its top and bottom surfaces to those of the surrounding layers indicate that this layer was most likely deposited by man rather than by erosion or some other form of natural deposition. It could, like the orange and yellow soils layer, have been deposited to create a new grade for some structural purpose.

Dating of the deposits has not been attempted because of the confusion over some of the layers' identities.

Light Brown Soil with Greyish Tint Layer;

Disturbance II (see figures 3 and 5)

Descriptions

The light brown soil with greyish tint layer was found in trenches C and A and the disturbance in trench A. The layer consists of a greyish light brown soil containing spots of organic material of unknown nature and medium brown soil. The soil is less compact than the light to medium brown soil layer. Disturbance II is apparently pit-like and is filled with relatively loose light to medium brown soil layer soil. This disturbance has a maximum visible depth and length of 10 and 20 inches respectively. The width is unknown, but no evidence of the disturbance was found in the opposite wall of the trench. No artifacts were recovered from either deposit.

Interpretations

Based on their position relative to the garbage layer, both deposits were deposited sometime between 1756 and c.1770. The light brown layer is too thick to have been created by the natural deposition of wind or water borne soil into the bastion because the existing bastion walls would have prevented such a large amount of soil from coming in. Likewise, the differing color and composition of the deposits in direct contact with, and close proximity to, the light brown layer indicate that this layer could not have been created by erosion of soils

already in the bastion. Thus the layer must have been deposited by man. It was perhaps deposited along with the orange and yellow soils layer to create an artificial grade for some structural purpose. Thus the layer could, along with the orange and yellow soils layer, be the remnants of the earth fill believed to have existed in the bastion in the 1756-1758 period. The geometric configuration of the disturbance II indicates that it was dug by man, but for what purpose is unknown.

Occupation Lens (see figures 5, and 6)

This deposit found in trenches C and D consists of a lens of dark grey organic material of unknown nature containing a few spots of apparent subsoil of orange color and a large number of pieces of uncooked bone, six of which were uncovered. In trench C four definite and one apparent 1700-c.1850 hand wrought iron nails with rose heads were found along with a possible post mold (6 inches in diameter and at least 5 inches deep) opening on the bottom surface of this layer and a piece of charred board (5 3/4 inches wide, 10 inches long at its longest point, and approximately 1/2 inch thick).

The occupation lens is the earliest deposit discovered by this project in the southwest bastion with irrefutable evidence of human activity. This deposit's position relative to the garbage layer indicates that it was deposited sometime in the 1756-c.1770 period. This lens seems too homogeneous to be a garbage deposit. It is more likely an occupation surface and perhaps became the ground level in the bastion after construction of the fort was begun and before the theoretical deposition of an earth fill in the bastion took place or was continued.

Light to Medium Brown Soil Layer (see figures 3, 5-8)

This layer found in trenches A, C and D and apparently in trenches E and F consists of a compact light to medium brown soil with greyish tint containing short lenses of organic material of unknown nature and a few spots of light grey soil. No artifacts were recovered.

This layer was deposited sometime in the 1756-c.1770 period based on its position relative to the garbage layer. The thickness of the layer indicates that it could not be composed of naturally wind or water borne soil as the existing bastion walls would have prevented such a large amount of soil to accumulate. Likewise, the differing color and composition of the deposits in direct contact with, and immediately adjacent to, the light to medium brown soil layer indicate that this layer's soil was not deposited by the erosion of soil already in the bastion. Thus this layer must have been deposited by man, perhaps to create a new grade for structural purposes. It could be the initial deposit of earth fill in the bastion with the occupation lens representing a hiatus in the deposition of further fill.

Organic Lens (see figures 3, 5-8)

This lens was found in trenches A, C, D, E and F. It consists of a dark grey organic lens stained with iron and with an iron-stained light grey lens sometimes underneath it (Bastian 1973b: 1). Apparent charcoal was found in the lens in trench C. In trench E most of the lens had been removed by the deposition of the trash layer.

Dr. John Foss, of the University of Maryland's Department of Agronomy, has examined this deposit and found it to be an accumulation of undisturbed topsoil. Both Mr. Tyler Bastian, State Archaeologist, and the author of this report believe that this was probably the surface of the ground in 1756 before construction of the fort was begun.

Undisturbed Subsoil Layer; Hard Pan (see figures 3-9)

Descriptions

The undisturbed subsoil layer was found in trenches A, B, C, D, E and F and square 1. The hard pan was found in trench D. The undisturbed subsoil layer consists of a brownish pale yellow soil which sometimes has a grey tint in its top section. Traces of black organic material of unknown nature are also sometimes



figure 11

- upper left: sherd of a German Westerwald stoneware mug decorated with a GR (George Rex) medallion. The sherd was deposited sometime in the 1756-c.1770 period in the trench E trash layer.
- upper right: sherd of a Chinese export porcelain tea bowl. The sherd was deposited sometime in the 1756-c.1770 period in the trench E trash layer.
- center left: French gunflint probably of musket size. It was deposited sometime in the 1756-c.1770 period in the trench E trash layer.
- center right: yellow metal ramrod pipe of possible American origin. It was found in the trench III fill of large pit-like disturbance soil and is very similar to one found at Fort Ligonier, Pennsylvania in a 1758-1766 archaeological context (Grimm 1970: 74, 93-94).
- bottom left: bone button deposited sometime in the 1756-c.1770 period in the square 1 trash layer.
- bottom right: green glass jewel from a cuff link or finger ring. It was deposited sometime in the 1756-c.1770 period in the square 1 trash layer.

present. The hard pan consists of a very compact bright yellow and light grey soil. No artifacts were recovered from either deposit.

Interpretations

The color, extreme compactness, tendency to break into flat flakes, and general clayey appearance of the hard pan indicate that it is definitely undisturbed subsoil which was present before construction of the fort was begun. The color, compactness, lack of artifacts, and general clayey appearance of the undisturbed subsoil layer indicate that it is almost certainly undisturbed subsoil which was present before construction of the fort was begun. Both layers were also found in the northeast bastion (see pp.78 &79).

DESCRIPTION AND INTERPRETATION OF FINDINGS IN THE NORTHEAST BASTION

Topsoil Layer (see figures 12-22)

Description

This topsoil is identical in appearance to that found in the southwest bastion and was found in the square and all the trenches. The most closely dated artifacts recovered from this layer include:

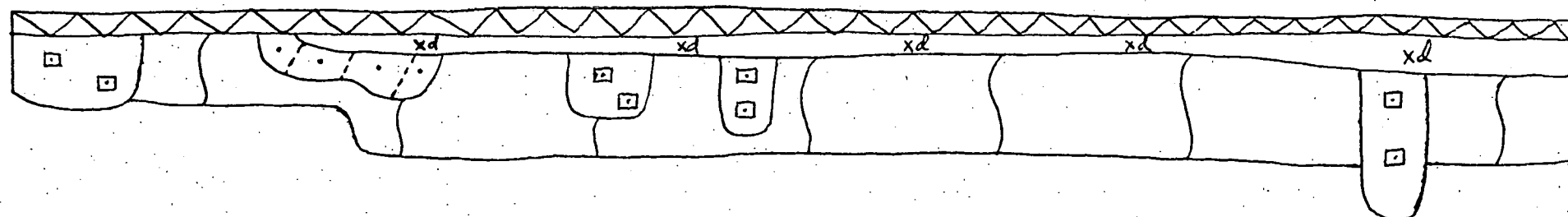
- | | |
|----------|--|
| Glass | 5 pieces of olive green glass (1700-1820's)
1 piece of 18th or 19th century green glass
2 pieces of light green glass possibly from 18th century medicine bottles
1 piece of light blue glass probably of 19th or 20th century date
1 piece of c.1900-present brown glass with crown cap closure
1 piece of brown glass apparently of 19th or 20th century date
6 pieces of uncolored glass probably of 19th or 20th century date
1 piece of uncolored glass with screw cap threads probably of c.1917-present date |
| Ceramics | 26 sherds of American pressed redware (c.1850-20th century)
8 sherds of delftware, almost certainly 18th century British
1 sherd of British Whieldon type creamware (c.1750-1775 or c.1755-1775)
2 sherds of creamware, probably 1760's-c.1850 British |

NE BASTION TRENCH I

figure 12

Each pair of dates refers to the period sometime during which a given layer was deposited.

0 2 ft.
approx. scale one inch = two feet
northeast trench wall



▤ topsoil layer (1934-1937?)

xd dirty orange subsoil fill layer and bright orange subsoil fill layer (subsoil fills) (1934-1937?)

▣ CCC trenches (1934)

▧ medium brown soil feature (c. 1830-1900?)

▨ undisturbed subsoil layer (before 1756?)

- 1 sherd of white earthenware, almost certainly of 19th or 20th century date
- 4 sherds of British scratch blue stoneware (c.1740-1770 or c.1750-1775)
- 2 sherds of British white saltglazed stoneware (c.1730-1770 or c.1720's-1770's)
- 1 sherd of either British scratch blue or white saltglazed stoneware
- 1 sherd of saltglazed stoneware, probably American or British brown stoneware, 18th or 19th century date
- 2 sherds of saltglazed stoneware, almost certainly Westerwald stoneware (1700-c.1770's)
- 1 definite and 1 possible sherd of 18th century Chinese export porcelain

Metal

- 1 yellow metal knee, stock or garter buckle fragment. Similar buckles have been found in a 1758-1766 archaeological context.
- 1 vest size two piece metal button. Identical buttons have been found in a 1758-1766 archaeological context.
- 1 "musket" ball apparently of 20th century date
- 50 definite or probable 1700-c.1850 hand wrought iron nails (2 headless, 4 with T heads, 1 with L head, the rest with rose heads or head treatment uncertain)
- 2 c.1830-20th century machine cut square iron nails
- 2 definite and 3 apparent 1850's-20th century iron wire nails

- Miscellaneous 15 pieces of clay pigeon of 19th or 20th century date
1 one-hole bone button assumed to be of 18th century date

Artifacts assumed to date from the 18th, 19th and/or 20th centuries and natural items include:

Glass

- 3 pieces of uncolored glass
- 1 piece of probable window glass
- 1 piece of glass with slight green tint

Ceramics

- 4 sherds of brown glazed redware
- 3 sherds of carmel glazed redware
- 1 sherd of unglazed redware

Metal

- 1 iron hinge fragment
- 5 pieces of iron, apparently wire
- 3 pieces of thin iron with rolled edges
- 1 piece of iron, apparently a square nail
- 1 piece of iron, function unknown

Miscellaneous

- 48 pieces of unglazed brick
- 9 pieces of glazed brick
- 15 pieces of uncooked bone
- 9 pieces of cooked bone
- 9 tooth fragments
- 1 piece of wood
- 3 pieces of charcoal
- 42 pieces of mortar and plaster
- 4 pieces of limestone, 2 with mortar still adhering
- 1 piece of stone with mortar or concrete adhering
- 2 clay pipe bowl fragments
- 1 clay pipe stem fragment

Interpretation

The interpretation of the topsoil in the northeast bastion is the same as that for the southwest bastion's topsoil.

Brown, Orange and Yellow Soils Layer (see figure 20)

This layer found in trench VIII consists of a deposit of brown soil containing some apparent subsoil of orange and pale yellow color and pieces of mortar and charcoal. No artifacts were recovered.

This layer's position relative to the topsoil layer and subsoil fills (see below) indicates that it dates no earlier than 1934 and probably no later than 1937. The deposit is assumed to be backfill deposited by the CCC for grading purposes.

Concrete Deposit (see figure 18)

This feature found in trench VI consists of a deposit of well-decayed concrete or mortar. Lack of time made it impossible to obtain the measurements of this deposit. No artifacts were recovered from it.

The deposit's position relative to the topsoil layer and subsoil fills (see below) indicates that it dates no earlier than 1934 and probably no later than 1937. It could represent discarded waste cement or mortar from the CCC repair operation on the existing wall or could have had some structural purpose.

Subsoil Fills (see figures 12-22)

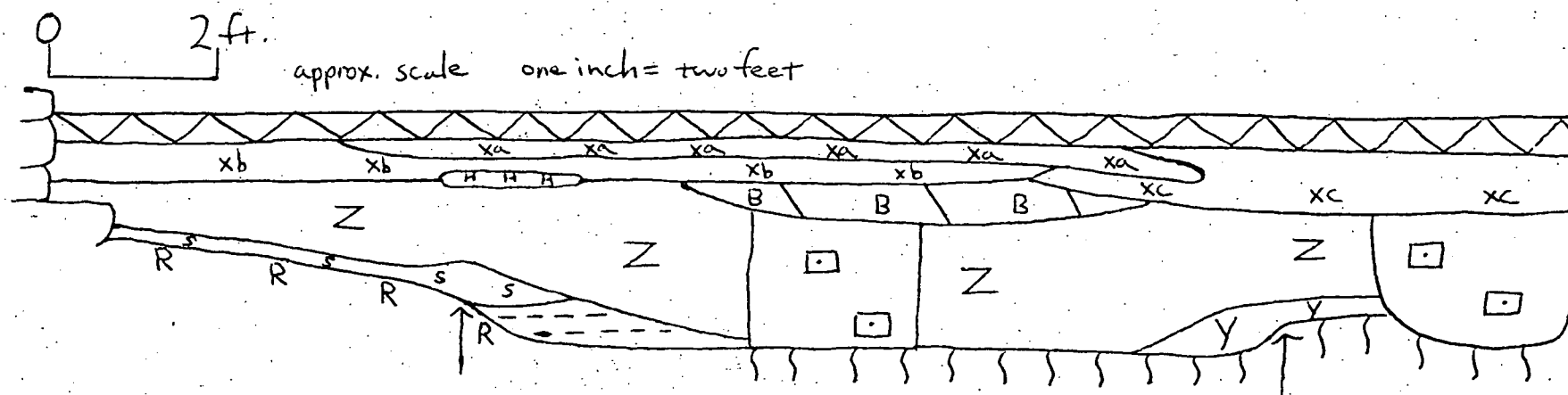
Description

The subsoil fills were found in the square and all the trenches. They consist of a number of distinct soil layers. Many of these layers are composed mostly or entirely of apparent subsoils of yellow, orange and/or red color. The others are composed predominately of brown soils containing some apparent subsoil. In trench VII a deposit of brown soil containing much brick and mortar was found. It had been deposited at the same time as the other layers of the subsoil fills.

NE BASTION TRENCH II, EAST WALL (from CCC trench to NE corner of trench)

figure 13

Each pair of dates refers to the period sometime during which a given layer was deposited.



topsoil layer (1934-1937?)

xa predominately bright orange subsoil fill layer

xb brown and yellow soil layer

xc predominately yellow subsoil fill layer

B brown soil layer (1934-1937?)

CCC trenches (1934)

H H concentration of charcoal (c. 1830?-1937?)

Z black soil and mortar layer (c. 1830?-1934)

S mixed soil layer (c. 1830?-1934)

Y grey soil layer (1800?-1934)

dull brown soil layer (1756-1934)

RR bright brown soil layer (1756-1934)

↑ edges of brick feature depression (1756-1934)

undisturbed subsoil layer (before 1756?)

} existing bastion wall stones

subsoil fills
(1934-1937?)

Artifacts of relatively close date recovered include:

- 2 1850's-20th century iron wire nails
- 1 square iron nail apparently of the 1700-c.1850 hand wrought type

Artifacts assumed to be of the 18th, 19th and/or 20th century date and natural items recovered include:

- 23 pieces of unglazed brick
- 2 pieces of glazed brick
- 9 pieces of slate fragments
- a number of pieces of mortar. A few pieces seem to be the same as that found in the trash layer in square 1 in the southwest bastion. Other pieces seem to be the one-half sand and one-half lime type described by the 1934 CCC "Archaeological Plan" map as being on the interior surface of the existing bastion wall.
- 2 pieces of wood
- 2 pieces of charcoal
- 1 iron object of unknown function

Interpretation

The interpretation of the subsoil fills is the same as that for the subsoil fill layer in the southwest bastion.

Brown Soil Layer (see figure 13)

This layer found in trench II consists of a medium to dark brown soil containing some brownish yellow soil and apparent subsoil of yellow and orange color. A fair number of brick, mortar and cut stone fragments with mortar still adhering are also present.

This layer's position relative to the CCC test trenches and subsoil fills indicates that it was deposited no earlier than 1934 and probably no later than 1937. The layer is probably backfill from the CCC test trenches. Some of the stone and mortar could have been dislodged from the existing bastion walls during their repair by the CCC.

CCC Trenches; CCC Trench Fill (see figures 12-18, 20 and 21)

Descriptions

These are trench-like disturbances found in all the trenches except trench VII. The trench fills consist of soils from older layers mixed with organic

material of unknown nature and sometimes spots of the subsoil fills' soils.

The most closely dated artifacts recovered from the trench fills include:

- 1 1700-c.1850 hand wrought square iron nail with rose head
- 1 machine cut square iron nail apparently of the c.1830-20th century type
- 1 probable iron buckle. A similar one was found in a 1758-1766 archaeological context.
- 2 pieces of probable 19th or 20th century uncolored glass

Artifacts assumed to date from the 18th, 19th and/or 20th centuries and natural items include:

- 1 piece of unglazed brick
- 4 pieces of mortar
- 1 apparent square iron nail
- 1 piece of uncooked bone

Interpretations

CCC trenches were identified after three pair of intersecting trenches were found in trench I (see figure 23). These three pair fit the description of "trenches 2 ft. deep, 1 ft. wide, dug in a criss cross manner and 8 ft. apart" excavated by the CCC in 1934 almost exactly (Schindel 1934: 2). The trench-like disturbances in the other trenches were identified as CCC trenches by comparing them with those found in trench I.

Combination Pit and Trench-like Disturbance (see figure 18)

This feature found in trench VI consists of a trench-like disturbance expanded on one of its sides into an apparent pit-like feature and opening into the subsoil fills. Lack of time made it impossible to obtain the measurements of this feature. It is filled with a light brown soil containing spots of yellow and grey soils and organic material of unknown nature. No artifacts were recovered.

The configuration of the trench-like portion of this feature indicates that it is most likely a CCC test trench widened for exploratory purposes.

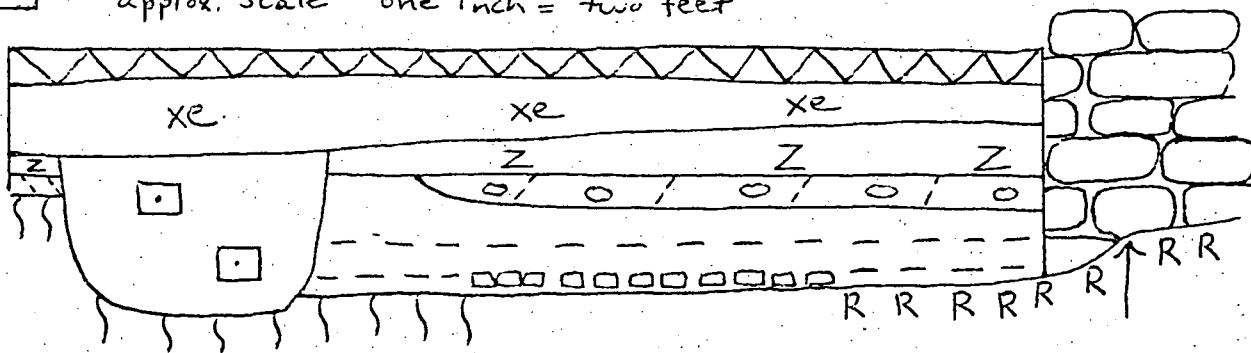
Ash Deposit













This feature found in trench I consists of a roughly circular deposit of

figure 14

Each pair of dates refers to the period sometime during which a given layer was deposited.

0 2ft. approx. scale one inch = two feet



- | | | | |
|---|--|---|--|
|  | topsoil layer (1934-1937?) |  | edge of brick feature depression (1756-1934) |
|  | subsoil fills (1934-1937?) |  | undisturbed subsoil layer (before 1756?) |
|  | CCC trench (1934) |  | existing bastion wall stones |
|  | black soil and mortar layer (c. 1830?-1934) | | |
|  | brown soil and mortar layer (c. 1781?-1934) | | |
|  | yellow, grey and black soils layer (1756-1934) | | |
|  | dull brown soil layer (1756-1934) | | |
|  | brick feature (1756-1934) | | |
|  | bright brown soil layer (1756-1934) | | |
- (For clarity that portion of this layer deposited against the NW wall of the brick feature depression is shown in situ even though it was removed during the project.)

ash containing a little charcoal. It has a maximum visible diameter and depth of 42 and 3 inches respectively. It was found directly under the dirty and bright orange subsoil fill layers. The surface of the undisturbed subsoil layer (see p.78 under the ash was not burned and was very irregular. No artifacts were recovered.

The ash deposit is the result of the burning of one or more objects. The fact that the soil under this deposit was not burned indicates that either the burning occurred elsewhere and the ash dumped in its present location or that the fire was burned where the ash was found and simply was not hot enough to burn the soil. The absence of the organic lens (see p.76) either above or below the deposit plus the possibility that the deposit was cut through by a CCC trench indicates that the deposit was deposited by the CCC in 1934 before their test trenches were excavated and after "the top-soil and about 4 in. of sub-soil" were removed from the area of the present trench (Schindel 1934: 2). The organic lens could have been removed along with the "top-soil" and "sub-soil" at this time, which would explain why the lens, which is almost certainly the "thin layer of decayed wood" noted on the 1934 "Archaeological Plan," could not be found in this area during the present excavation even though shown here on the CCC's "Archaeological Plan."

Stone and Concrete; Pit-like Disturbance (see figure 15)

Descriptions

This deposit and disturbance were found in trench III. The stone and concrete deposit partially seals the pit-like disturbance and consists of a mixture of stone and large pieces of concrete or mortar, of either 18th, 19th or 20th century date, a few of which were recovered. The disturbance has a maximum visible length and width of 63 and 52 inches respectively. The maximum visible depth is 38 inches. The disturbance is filled with lenses of organic material of unknown nature and brown soil containing spots of apparent subsoil of yellow color and grey soil. Artifacts recovered from the disturbance include a piece of mortar of 18th, 19th or 20th century date, a firearm ramrod pipe very similar to one found in a

1758-1766 archaeological context (Grimm 1970: 74, 93-94), and a number of pieces of probable tree root.

Interpretations

Both the deposit and disturbance appear to date from sometime in the 1934-1937 period. The relationship of the individual stone and concrete or mortar fragments to one another seems to indicate that they were dumped in their present location apparently as either fill for the pit or as part of the subsoil fills.

The pit-like disturbance may have been excavated by the CCC to remove the large tree in the apex of the bastion shown in a c.1933 photograph (Maryland Geological Survey negative 484A). The pieces of probable tree root support this theory as do dead tree roots found in trench II running through the dull brown soil layer, bright brown soil layer and undisturbed subsoil layer (see pp.70 , 76 & 78).

Apparent Pit-like Disturbances (see figures 16 and 19)

Apparent pit-like disturbances opening into the subsoil fills were found in trenches IV and VII. Lack of time made it impossible to obtain the measurements of the feature in trench VII. The feature in trench IV had a maximum visible depth and length of 20 and 42 inches respectively. The width is unknown. The fill of both consisted of predominately brown soil containing spots of organic material of unknown nature and other soils. No artifacts were recovered.

The geometric configurations of these disturbances indicate that they were man made, but their date and purpose are not certain. They may be related to the 1934-1937 period pit-like disturbance found in trench C in the southwest bastion. While they seem very similar in configuration to the CCC test trenches, it is conceivable that they are the result of some earlier activity.

Narrow Disturbance (see figure 20)

This feature found in trench VIII consists of a narrow and perpendicular

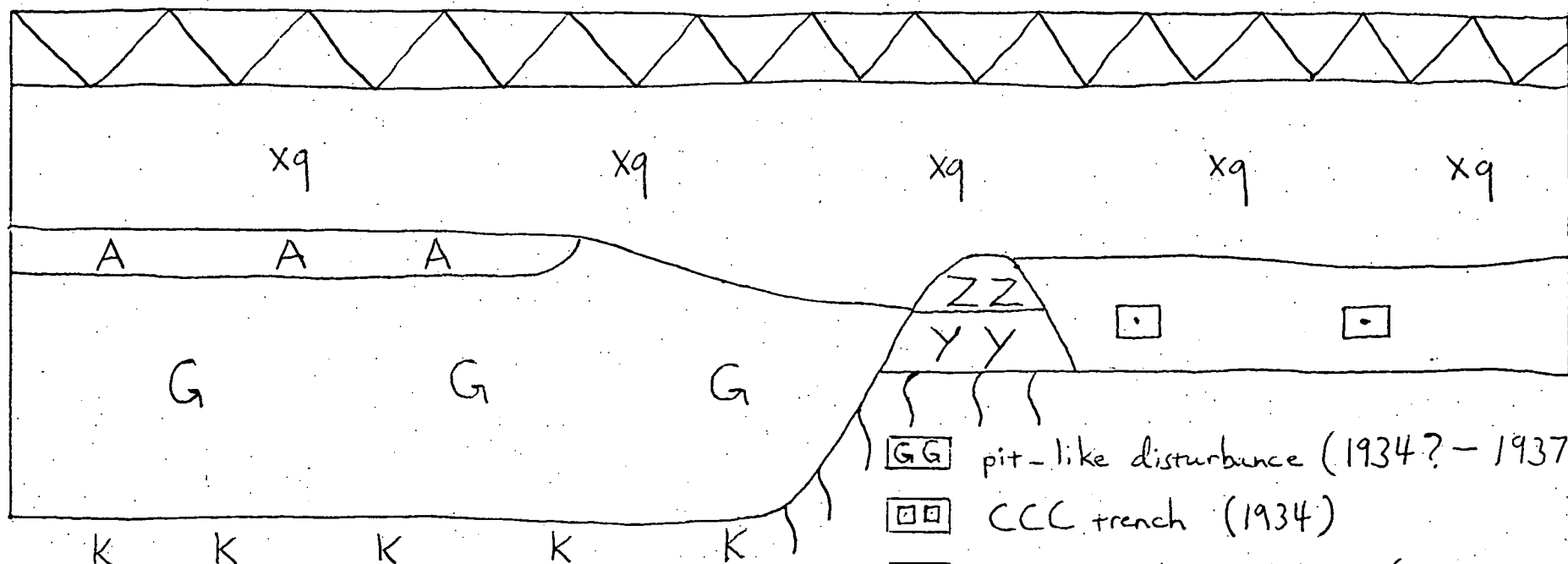
NE BASTION TRENCH III

figure 15

Each pair of dates refers to the period sometime during which a given layer was deposited.

0 1 ft.
approx. scale one inch = one foot

southeast trench wall



topsoil layer (1934-1937?)

xq subsoil fills (1934-1937?)

AA stone and concrete (1934?-1937?)

GG pit-like disturbance (1934?-1937?)

CC trench (1934)

ZZ black soil and mortar layer (c. 1830?-1934)

YY grey soil layer (1800?-1934)

SS undisturbed subsoil layer (before 1756?)

KK hard pan (before 1756)

disturbance approximately $8\frac{1}{2}$ feet from the existing bastion wall filled with a mixture of brown soil and black organic material of unknown nature which opens onto the subsoil fills. It is oriented perpendicularly to the present ground surface and is approximately 10 inches deep, 4 inches wide at the mouth and 2 inches wide at the base. No artifacts were recovered.

This disturbance seems to be a post mold. Its date is unknown, but it could be a remnant of the scaffolding built by the CCC in the 1934-1937 period while repairing the existing bastion wall (Bastian 1973a: 2, 4; Maryland Geological Survey negative 491).

Light Brown Soil with Traces of Brick and Mortar;

Organic Stratum (see figure 22)

Descriptions

Both deposits were found in the square. The brown soil layer consists of a light brown soil containing traces of brick, mortar and organic material of unknown nature. This layer directly overlies the organic stratum which consists of a lens of organic material of unknown nature. No artifacts were recovered from either deposit.

Interpretations

Both deposits' position relative to the black soil and mortar layer (see p.54) indicates that they were deposited after this layer and thus were probably deposited sometime in the c.1830-1937 period.

The homogeneity, small particle size, relative looseness, thinness, and parallel orientation to the immediately underlying layer of the organic stratum indicates that it was deposited by nature. It could be related to, or even a portion of, the organic streak found in trenches V and VI (see p.55).

The presence of the brick and mortar and the dissimilarity in soil color to those of the surrounding layers seem to indicate that the light brown soil with traces of brick and mortar layer was deposited by man. The purpose of this deposition is unknown, but it could be part of the subsoil fills.

Medium Brown Soil Feature (see figure 12)

This feature found in trench I consists of a pit-like disturbance filled with a medium brown soil. Its maximum visible length and width are 35 and 38 inches respectively. The maximum visible depth is 16 inches. Two pieces of window glass, three pieces of mortar, a piece of stone with mortar adhering (all assumed to be of either 18th, 19th or 20th century date), a 1700-c.1850 hand wrought iron nail with rose head, four c.1830-20th century machine cut iron nails and a c.1830-1870? machine cut iron spike or large nail were recovered.

The configuration of the feature and the presence of the spike or large nail made no earlier than c.1830 and probably no later than c.1870 probably indicate that the feature was not excavated by the CCC. Since it can be assumed that the spike or large nail was consumed and deposited relatively soon after its manufacture, the feature most likely dates from sometime in the c.1830-1900 period. The nature of the artifacts recovered from the disturbance seems to indicate that it had some structural purpose and it is possible that the nails recovered were part of this structure.

Charcoal Concentration on Surface of Black Soil
and Mortar Layer (see figure 13)

This feature found in trench II consists of a deposit of charcoal fragments directly on top of the black soil and mortar layer (see below). Its maximum visible length and width are 39 and 22 inches respectively. The maximum visible depth is $\frac{1}{2}$ inch. The portion of the latter layer under the charcoal was not burned. The charcoal fragments were both round and flat and not oriented in any one direction. An apparent square iron nail and a number of pieces of charcoal were recovered.

The feature's position relative to the black soil and mortar layer and topsoil indicates that it was probably deposited sometime in the c.1830-1937 period. The different cross sections and jumbled orientation of the charcoal indicate that it probably represents a campfire or brush burning activity. The fact that

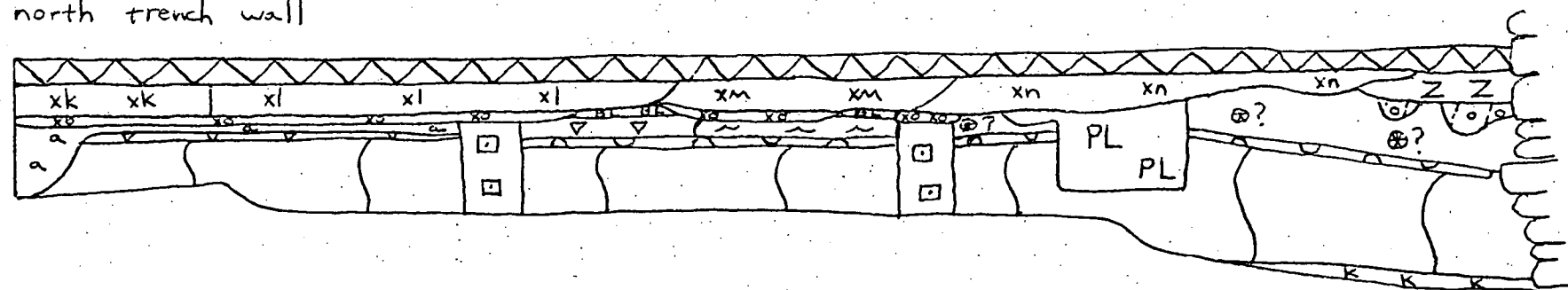
NE BASTION TRENCH IV

figure 16

Each pair of dates refers to the period sometime during which a given layer was deposited.

0 3 ft.
approx. scale one inch = three feet

north trench wall



topsoil layer (1934-1937?)

xk yellowish orange, yellow and brown soils

xl red subsoil

xm brownish soil

xn yellow and orange subsoils

xo yellow and whitish subsoils

BL brown layer (1756-1937?)

CCC trenches (1934)

PL apparent pit-like disturbance (1756-1937?)

ZZ black soil and mortar layer (c.1830?-1934)

subsoil fills
(1934-1937?)

brown soil and mortar layer (c.1781?-1934)

aa tan soil layer (1756-1934)

brown soil and gravel layer (1756-1934)

concentration of gravel (1756-1934)

yellowish brown soil layer?

organic lens (before 1756?)

undisturbed subsoil layer (before 1756?)

hard pan (before 1756)

existing bastion wall stones

the layer beneath is not burned could indicate that the charcoal was deposited after being burned in another location or that it was burned where found in a fire not hot enough to burn the underlying soil.

Black Soil and Mortar Layer (see figures 13-18)

Description

This layer found in trenches II, III, IV, V, and VI consists of a black organic soil containing scattered traces of brown and yellow soils, a large amount of mortar and cut stone fragments with and without mortar adhering, a few rounded stones and some brick fragments. In trench II in particular the layer is rather loose, and even voids between stone fragments were found.

The most closely dated artifacts found include:

- 1 sherd of British scratch blue stoneware (c.1740-1770 or c.1750-1775)
- 1 c.1830-20th century machine cut square iron nail
- 9 pieces of probable 19th or 20th century uncolored glass

Artifacts assumed to date from the 18th, 19th, and/or 20th centuries and natural items recovered include:

- 1 piece of brown glass
- 1 iron object of unknown function
- 1 piece of iron, apparently wire
- 20 unglazed brick fragments
- 1 piece of brick with mortar still adhering
- a number of pieces of mortar. Some are apparently the one-half sand, one-half lime variety described in the 1934 "Archaeological Plan."
- Others seem to be identical to mortar found in situ around the footing stones of the existing bastion wall.
- 2 pieces of charcoal

Interpretation

The machine cut nail and uncolored glass indicate that this layer was probably deposited after c.1830. The layer's position relative to the CCC trenches indicates that it was deposited no later than 1934. The looseness of the soil and the voids found between stone fragments indicate that the stone and mortar is fallen rubble, while the similarity of the mortar and stone to that in the existing bastion wall probably indicates that they were originally part of this wall. The black soil may indicate that the bastion was part of the "barn-

yard" present in the fort in 1898 (Bastian 1970: 10).

Brown Soil and Mortar Layer (see figures 13, 14, 16-18)

Description

This layer found in trenches II, IV, V, and VI consists of a grainy medium brown soil containing many pieces of mortar and cut stone with and without mortar adhering, a few rounded stones, and some brick fragments. In trench II the layer is as loose as the black soil and mortar layer.

Artifacts (all assumed to date from the 18th, 19th and/or 20th centuries) recovered include:

- 1 iron object of unknown function
- 2 pieces of glazed brick
- 52 pieces of unglazed brick (one with mortar adhering)
- a number of pieces of mortar, some of which seem to be of the one-half lime one-half sand variety

Interpretation

This deposit is very similar to the black soil and mortar layer except for the soil color. Again, the looseness of the soil indicates that the mortar and stone are fallen rubble which, based on their similarity to that still in place in the existing bastion wall, probably came from the wall. The brown soil could be greatly decomposed mortar. The layer could not have been deposited after 1934 based on its position relative to the CCC trenches. It seems most likely that the deterioration represented by this layer did not take place until after the Revolutionary War occupation of the fort. Since the fort was then being used as a prison, it is assumed that the walls would have been kept in good repair rather than left to deteriorate (Bastian 1970: 7-9).

Organic Streak (see figures 17 and 18)

This deposit found in trenches V and VI consists of a lens approximately $\frac{1}{4}$ inch thick of organic material of unknown nature. No artifacts were recovered.

The lens' homogeneity, small particle size, relative looseness, thinness, and parallel orientation to the immediately underlying deposits indicate that it was

NE BASTION TRENCH V

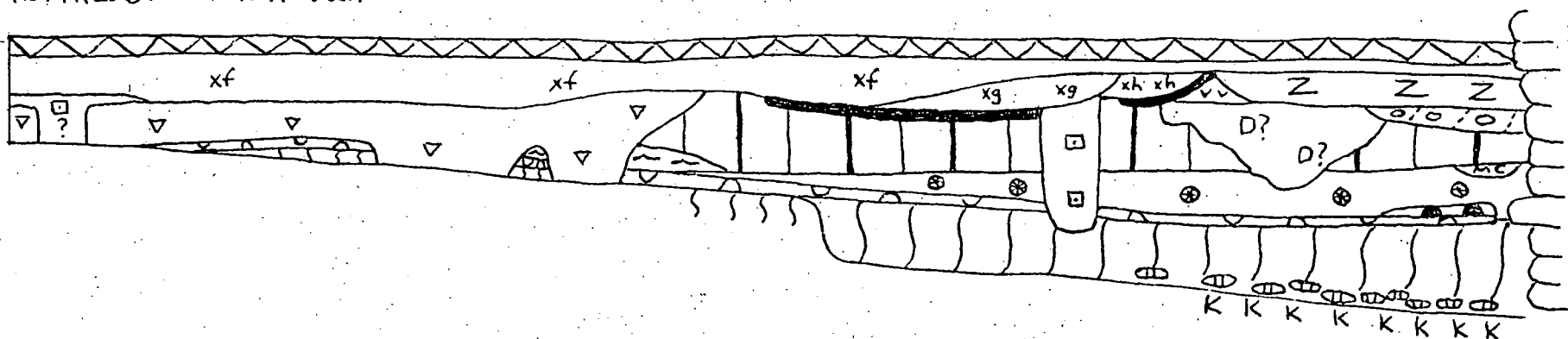
figure 17

Each pair of dates refers to the period sometime during which a given layer was deposited.

0 3 ft.

approx. scale one inch = three feet

northeast trench wall



topsoil layer (1934-1937?)

orange subsoil layer

orange subsoil and brown soil layer

brownish pale yellow soil layer

CCC trench (1934)

CCC trench (1934?)

black soil and mortar layer (c. 1830?-1934)

brown soil and mortar layer (c. 1781?-1934)

subsoil fills
(1934-1937?)

organic streak (1756-1934)

medium brown soil with mortar and charcoal layer (1756-1934)

possible disturbance (1756-1934)

brown soil and gravel layer (1756-1934)







pale greyish yellow soil layer (1756-1934)

concentration of gravel (1756-1934)

mortar lens C (1756-1934)

yellowish brown soil layer (1756-1934)

NE BASTION TRENCH V figure 17 (continued)

-  hard layer (1756-1934)
-  organic lens (before 1756?)
-  undisturbed subsoil layer (before 1756?)
-  concentration of stones (before 1756?)
-  hard pan (before 1756)
-  existing bastion wall stones

deposited by nature. Its position relative to the other layers in the trench indicates a deposition date sometime between 1756 and 1934, most likely sometime after the fort was abandoned by colonial troops around 1758.

Medium Brown Soil with Mortar and Charcoal Layer (see figure 17)

This deposit found in trench V consists of a medium brown soil containing scattered specks of mortar and charcoal. No artifacts were recovered.

The deposit's position relative to the other layers in trench V indicates that it was deposited sometime in the 1756-1934 period. It is uncertain whether it was deposited by man or nature or what its function could have been.

Possible Disturbance (see figure 17)

A possible disturbance, apparently pit-like, was found in trench V. A lack of time made it impossible to obtain the measurements of this phenomenon. The fill is almost identical to the pale greyish yellow soil layer (see p. 62) but it is somewhat looser. No artifacts were recovered.

If this actually is a disturbance, then its geometric configuration indicates creation by man for some unknown purpose. Its position relative to the trench's other deposits indicates deposition or creation sometime between 1756 and 1934.

Tan Soil Layer (see figures 16 and 19)

This layer found in trenches IV and VII consists of a tan colored soil. No artifacts were recovered from it. In trench IV the layer fills a partially exposed disturbance with a maximum visible depth and length of 11 and 12 inches respectively. The width is unknown.

The layer and disturbance's position relative to the other trench layers indicates that they were deposited sometime in the 1756-1934 period. The geometric configuration of the disturbance indicates that it is man made, perhaps for some structural purpose. The difference in both its color and composition from surrounding layers, its large extent, and the orientation of its top and bottom

surfaces to those of the surrounding layers indicate that the tan soil layer was probably deposited by man, possibly for levelling purposes, rather than by erosion or some other natural form of deposition.

Brown Layer (see figure 16)

This layer found in trench IV consists of a brown soil. No artifacts were recovered from it.

The layer's position relative to the trench's other layers indicates that it was deposited sometime in the 1756-1937 period. This layer may actually be a portion of the tan soil layer. It is uncertain whether it was deposited by nature or, if by man, what its function was.

Brown Soil and Gravel Layer (see figures 16-19 and 21)

This layer was found in trenches IV, V, VI, VII and apparently in trench IX. It consists of a greyish brown soil containing a fair number of small shale or slate fragments and scattered spots of yellow soil. In trench V this layer fills a large odd-shaped disturbance and in trench VI fills the top of a small disturbance mostly filled with bone, charcoal, ash, and burned soil. Lack of time made it impossible to obtain the measurements of the trench VI disturbance. The trench V disturbance has a maximum visible length and width of 4 feet and 27 inches respectively. The maximum visible depth is approximately 8 inches. Artifacts recovered include: four pieces of unglazed brick and a possible iron glazier's point, all of 18th, 19th, or 20th century date.

The layer's position relative to the other deposits in the bastion indicates that it was deposited sometime in the 1756-1934 period. The thickness of the layer indicates that it could not be composed of naturally wind or water borne soil as the existing bastion walls would have prevented such a large amount of soil to accumulate. Likewise, the differing color and composition of the deposits in direct contact with, and immediately adjacent to, the brown soil and gravel layer indicate that this layer's soil was not deposited by the erosion of

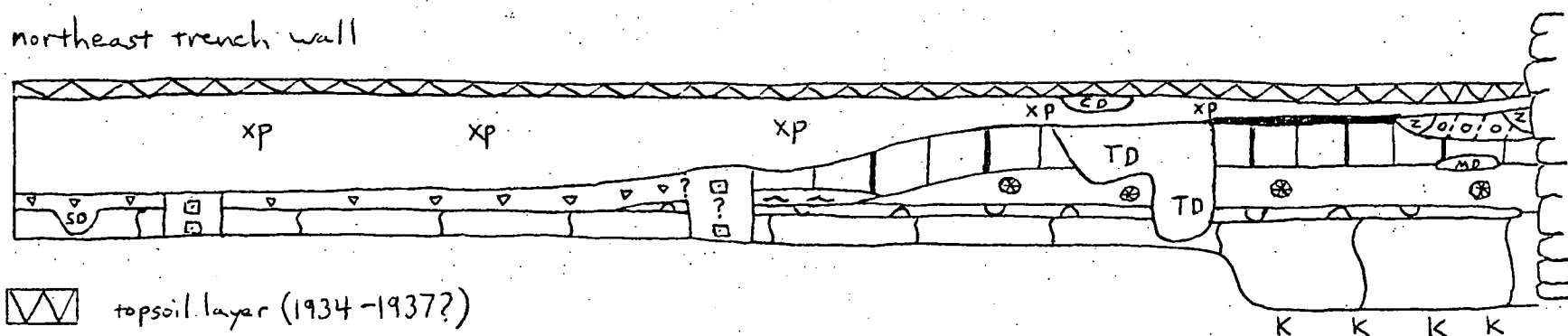
NE BASTION TRENCH VI

figure 18

Each pair of dates refers to the period sometime during which a given layer was deposited.

0 3 ft.
approx. scale one inch = three feet

northeast trench wall



topsoil layer (1934-1937?)

bright orange soil with spots of yellow and brown soil (subsoil fills) (1934-1937?)

CCC trench (1934)

CCC trench? (It is uncertain if the north wall of the disturbance extends to the subsoil fills.)

concrete deposit (1934-1937?)

combination pit and trench-like disturbance (1934?)

black soil and mortar layer (c. 1830?-1934)










brown soil and mortar layer (c. 1781?-1934)

organic streak (1756-1934)

brown soil and gravel layer (1756-1934)

NE BASTION TRENCH VI

figure 18 (continued)

-  small disturbance filled with garbage (1756-1934)
-  pale greyish yellow soil layer (1756-1934)
-  concentration of gravel (1756-1934)
-  mortar lens D (1756-1934)
-  yellowish brown soil layer (1756-1934)
-  organic lens (before 1756?)
-  undisturbed subsoil layer (before 1756?)
-  hard pan (before 1756)
-  existing bastion wall stones

soil already in the bastion. Thus this layer was deposited by man, possibly for levelling purposes. The shale or slate could have originated through natural or deliberate disturbance of the concentration of gravel (see p.63) immediately beneath the brown soil and gravel layer. The geometric configuration of the trench V disturbance indicates that it is man made. This disturbance might have had some structural function. The trench VI disturbance was apparently excavated to burn the garbage found in it.

Pale Greyish Yellow Soil Layer (see figures 17, 18 and 22)

This layer found in trenches V and VI and the square consists of a greyish pale yellow soil containing spots of organic material of unknown nature and apparent subsoil of yellow color. No artifacts were recovered.

The layer's position relative to the other deposits in the trench indicates deposition sometime in the 1756-1934 period. A deposit this thick could not have been created by the natural transportation of material into the bastion, because the existing bastion wall would have prevented such an extensive deposition. Furthermore, the differing composition of the layers surrounding the deposit indicate that it could not have been created by the erosion of these layers. Thus, the pale greyish yellow soil layer must have been deposited by man, apparently for some structural purpose. The pale greyish yellow soil layer and the fill of the possible disturbance are almost identical in overall appearance to one another (see p. 58). There is also a definite similarity in overall appearance between this layer and the yellowish brown soil layer (see p. 63) on the one hand, and the orange and yellow soils layer, light brown soil with greyish tint layer and light to medium brown soil layer found in the southwest bastion on the other. This similarity could indicate a similar date (1756-c.1770) and/or function for all five layers.

Concentration of Gravel (see figures 16-18)

This feature found in trenches IV, V and VI consists of a deposit of gravel size pieces of slate or shale containing a little brown soil. The average width is $4\frac{1}{2}$ feet with an average depth of 6 inches. The total length of the deposit is unknown. No artifacts were recovered.

The deposit's position relative to the others in the trench indicates deposition sometime in the 1756-1934 period. Its horizontal and vertical position indicates that it is almost certainly a portion of the "shale over decayed wood" feature illustrated on the 1934 "Archaeological Plan." If this is correct, the entire feature is apparently a path, conceivably leading to the brick feature in trench II (see p. 72). Alternatively, the concentration of gravel could be related in time and/or function to the two slate or shale deposits found in the southwest bastion since they are all composed of shale or slate.

Mortar Lens C; Mortar Lens D; Yellowish Brown Soil Layer (see figures 17 and 18)

Descriptions

Mortar lens C, found in trench V on the surface of the yellowish brown soil layer (see below), consists of a relatively flat lens of mortar close to, but not connected with, the existing bastion wall. Although basically solid, a few gaps are present. Mortar lens D, found in trench VI on the surface of the same layer, is much smaller than lens C but otherwise identical. Both deposits appear to be composed of the same type of mortar (Stone 1973: 1-3) which appears to be the one-half lime one-half sand type noted in the 1934 "Archaeological Plan." Samples of mortar from both lenses were recovered.

The yellowish brown soil layer was found in the square and in trenches V and VI. It is probably also present in trench IV, although the layer in question could be the pale greyish yellow layer instead. The layer consists of a brownish yellow soil sometimes containing spots of organic lens soil (see p. 76) and grey soil.

Some pieces of badly leached mortar (Stone 1973: 1-3) were found in the three trenches in this layer and were recovered. Almost all of those found in

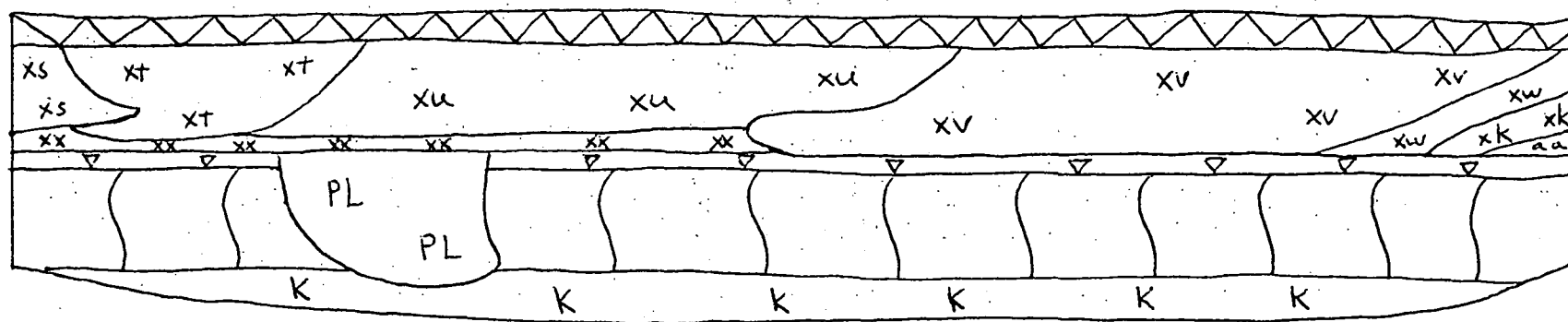
NE BASTION TRENCH VII

figure 19

Each pair of dates refers to the period sometime during which a given layer was deposited.

0 2 ft.
approx. scale one inch = two feet

northwest trench wall



▨ topsoil layer (1934-1937?)

XS brown soil containing much brick and mortar

XT bright orange subsoil

XU mixture of brown, grey, bright red and pale yellow soils

XV mixture of brown, grey, and paler yellow soils

XW brown and pale yellow soils containing grey and black soils

XK yellowish orange, yellow and brown soils.

XX bright red subsoil

aa tan soil layer (1756-1934)

PL apparent pit-like disturbance (1756-1937?)

▽▽ brown soil and gravel layer (1756-1934)

subsoil fills (1934-1937?)

SS undisturbed subsoil layer (before 1756?)

KK hard pan (before 1756)

trench V were recovered at the juncture of the yellowish brown soil layer and the hard layer. All of the leached mortar appears to be of the same type as that in Mortar lenses C and D described above.

Interpretations

The position of all three deposits relative to the others in the bastion indicates deposition sometime in the 1756-1934 period.

The similarity in the mortar lenses' composition, and position relative to the existing bastion wall indicate that they were probably deposited at the same time. Both lenses could have been deposited for some structural purpose but are most likely waste material dropped while the existing bastion wall was being mortared (Stone 1973: 1-3). They may be similar in date (1756-1934) and/or function to the two mortar lenses found in the southwest bastion.

A deposit as thick as the yellowish brown soil layer could not have been created by the natural transportation of material into the bastion, because the existing bastion wall would have prevented such an extensive deposition. Furthermore, the difference in the compositions of the layers surrounding the yellowish brown soil layer indicates that this layer could not have been created by erosion of the surrounding layers. The yellowish brown soil layer must thus have been deposited by man, perhaps for some structural purpose. Since this layer was deposited before the concentration of gravel, it is perhaps more likely to be the remains of a theoretical 1756-1758 bastion earth fill. It is known that in 1778 "a Bank of dirt" was present in the "North Bastion" (Hughes: 2). However, it is not certain whether the "North" and northeast bastions are one in the same or at what time prior to 1778 the earth was placed there.

Only one type of mortar (half lime-half sand) was noticed in situ in that portion of the existing bastion wall covered by soil from the bottom edge of the yellowish brown soil layer to the present ground surface. In all three trenches some of this in situ mortar is apparently more leached in some places than in others (Stone 1973: 1-3) and thus gives the mistaken impression of being distinct types. The mortar comprising lenses C and D and that found in the yellowish

brown soil layer is apparently identical (Stone 1973: 1-3). If all of the half lime-half sand mortar is identical it probably indicates that that portion of the existing bastion wall covered by the yellowish brown soil layer was mortared and then the yellowish brown soil layer deposited. After the soil was deposited the rest of the wall was mortared and some waste mortar (lenses C and D) from this activity dropped. It would seem likely that this entire process was done fairly quickly and thus that all three deposits are of about the same age.

The half lime-half sand type of mortar is also found in situ in the existing bastion wall above the present ground surface along with a distinct hard greyish mortar. The hard greyish mortar (Stone 1973: 1, 3), based on its presence in the higher and obviously reconstructed portions of the wall, is that used by the CCC in their reconstruction work. The fact that this type of mortar was noticed only above the present ground surface apparently indicates that in at least the north-east bastion the existing bastion wall was reconstructed after the topsoil had been deposited and that while reconstructing these walls the footings were not disturbed.

Below the bottom surface of the yellowish brown soil layer a third type of in situ mortar (earth, lime and sand) (Stone 1973: 1-3) was found exclusively. Its position in the existing bastion wall and relative to the organic lens and undisturbed subsoil layer (see pp. 76 & 78) indicates that it is the original mortar used when this portion of the existing bastion wall was constructed sometime in the 1756-1758 period.

The half lime-half sand mortar predates the excavation of the CCC test trenches and dates no earlier than 1756. On the one hand, it could have been deposited at the same time as the earth, lime and sand mortar and thus date from the 1756-1758 period. The simultaneous use of different types of mortar in the same structure is known (Stone 1973: 2). Alternatively, the half lime-half sand mortar could have been deposited during a repair operation occurring as early as the 1756-1758 period or as late as the 20th century. A c.1914 photo of an animal pen incorporating part of the south curtain wall shows this section partially

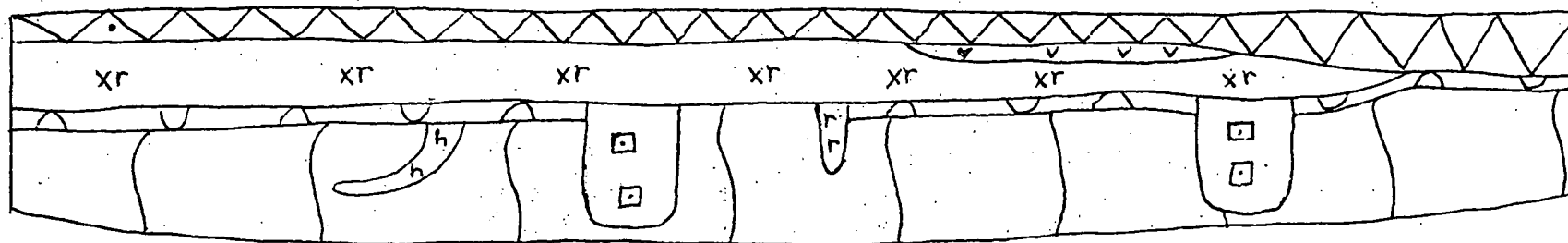
NE BASTION TRENCH VII









figure 20

Each pair of dates refers to the period sometime during which a given layer was deposited.

0 2 ft.
approx. scale one inch = two feet

southeast trench wall



-  topsoil layer (1934-1937?)
-  brown, orange and yellow soils layer (1934-1937?)
-  an orange subsoil (subsoil fills) (1934-1937?)
-  CCC trenches (1934)
-  narrow disturbance (1756-1937?)
-  organic lens (before 1756?)
-  curved disturbance (before and/or after 1756)
-  undisturbed subsoil layer (before 1756?)

remortared and indicates how late such repair work was being done (Kish: 1973 interview).

Hard Layer (see figure 17)

This deposit found in trench V consists of a compact mixture of apparent subsoil of orange color and brown, grey and black soils. No artifacts were recovered.

The deposit's position relative to the others in the trench indicates deposition sometime in the 1756-1934 period. It is not certain whether this was deposited by nature, or, if by man, for what purpose.

Yellow, Grey and Black Soils Layer; Mixed Soil Layer (see figures 13 and 14)

Descriptions

Both layers were found in opposite walls of trench II. The yellow, grey and black soils layer consists of an apparent subsoil of yellow color containing spots of grey soil and black organic material of unknown nature and a few small stones and pieces of mortar. No artifacts were recovered from this layer. The mixed soil layer consists of a mixture of dark brown, medium brown and yellow soils plus spots of organic material of unknown nature and some pieces of mortar. One machine cut square iron nail, apparently of the c.1830-20th century type, was recovered.

Interpretations

Both layers were definitely deposited sometime in the 1756-1934 period based on their position relative to the rest of the deposits in the trench. The nail tentatively dates the mixed soil layer as c.1830 or later. This tentativeness is based on the fact that the artifact's date is not certain and the fact that the nail was the only artifact recovered. It is possible that the two layers were deposited at about the same time as they occur at about the same depth. Any overlap of the layers (if it did exist at all) has been destroyed by the CCC trenches in the areas exposed. The similarity between the soils composing these layers and

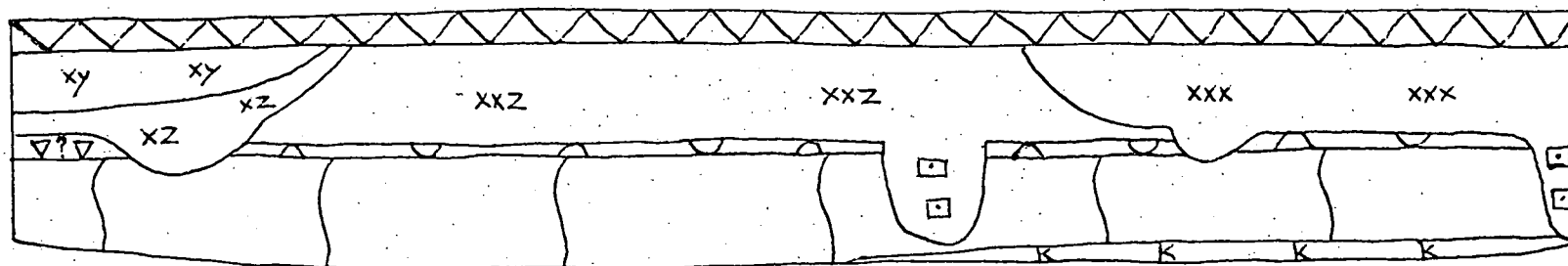
NE BASTION TRENCH IX

figure 21

Each pair of dates refers to the period sometime during which a given layer was deposited.

0 2 ft.
approx. scale one inch = two feet

southwest trench wall



topsoil layer (1934-1937?)

xy brownish orange soil containing pebbles and yellow soil

xz bright brick red subsoil

xxx orange subsoil containing pebbles and spots of yellow soil

xxz brown soil with yellow tint containing organic material

CCC trenches (1934)

brown soil and gravel layer?

organic lens (before 1756?)

subsoil fills
(1934-1937?)

undisturbed subsoil layer
(before 1756?)

hard pan (before 1756)

those composing the deposits immediately above and below them, the layers' thinness, and the parallel orientation of the top and bottom surfaces of both layers to those of the deposits just mentioned indicate that both layers were most likely created by the mixing through frost action, or some other natural phenomenon, of the deposits immediately above and below them.

Grey Soil Layer; Dull Brown Soil Layer (see figures 13-15)

Descriptions

The grey soil layer found in trenches II and III consists of a brownish grey soil containing spots of yellow soil and organic material of unknown nature. In both trenches, the soil completely surrounded the jumbled brick and stone found adjacent to the brick feature (see p. 72). Artifacts recovered include a fragment of an 18th or 19th century triangular bayonet, two pieces of 18th, 19th or 20th century unglazed brick, eleven pieces of uncooked bone and two pieces of uncolored glass (one 18th, 19th or 20th century, the other probably 19th or 20th century).

The dull brown soil layer was found in trench II and consists of a relatively fine grained and loose brownish yellow soil containing a few small pieces of mortar and specks of organic material of unknown nature. The layer is very similar in appearance to the bright brown soil layer (see below). The soil completely surrounded the jumbled brick and stone found adjacent to the brick feature and covered at least the tops and sides of the bricks composing the brick feature. Artifacts recovered include four pieces of thin iron of unknown function, three pieces of glazed brick, five pieces of unglazed brick, four pieces of mortar (all of 18th, 19th or 20th century date), two pieces of wood, two pieces of stone with mortar adhering, one piece of stone containing fossils, and eleven pieces of uncooked bone (nine fitting together to form a single piece).

Interpretations

Both layers were deposited sometime in the 1756-1934 period based on their position relative to the other deposits found in the bastion. Any overlap of

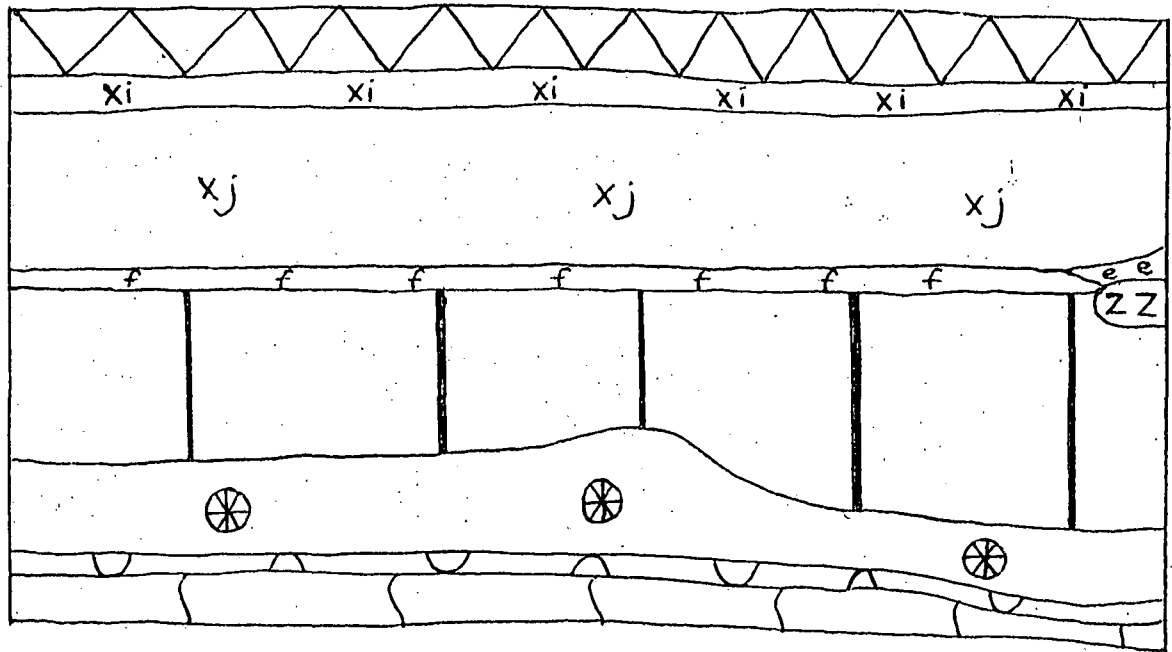
NE BASTION SQUARE











figure 22

Each pair of dates refers to the period sometime during which a given layer was deposited.

0 1 ft.
approx. scale one inch = one foot

northwest square wall



-  topsoil layer (1934-1937?)
-  bright reddish orange subsoil
-  brownish bright yellow subsoil
-  light brown soil with traces of brick and mortar (c. 1830?-1937?)
-  organic stratum (c. 1830?-1937?)
-  black soil and mortar layer (c. 1830?-1934)
-  pale greyish yellow soil layer (1756-1934)
-  yellowish brown soil layer (1756-1934)
-  organic lens (before 1756?)
-  undisturbed subsoil layer (before 1756?)

the layers (if it did exist at all) has been destroyed by CCC trenches in the areas exposed. The piece of probable 19th or 20th century glass tentatively dates the grey soil layer as 19th or 20th century. This tentativeness is based on the fact that the date of the glass is not certain, that the group of artifacts recovered from this layer is too small to give a reliable deposition date, and that any or all of these artifacts could be intrusive since they were recovered from an area immediately under a portion of the black soil and mortar layer which was very loose and contained many large stones.

The small size of the particles composing the dull brown soil layer, as well as the similarity between its color and those of the surrounding bright brown soil and undisturbed subsoil layers (see pp. 76 & 83), indicate that the dull brown soil layer may have been created by the erosion of soil from the two surrounding layers. The small particle size of the grey soil layer indicates that it too may be eroded soil. The grey color might be the results of leaching from the immediately above black soil and mortar layer and/or of the natural deposition of organic material such as leaves on and into the eroded soil. The slight depression in which the brick feature was constructed would be subject to erosion and would act as a trap for leaves and similar organic material.

Brick Feature (see figures 14, 24 and 25)

Description

The brick feature was found in trench II and consists of a single layer of one rounded stone and a number of brickbats arranged basically into pairs one behind the other. The feature is 4 feet long and approximately 1 foot wide. No mortar was found between them. Neither the bricks nor the one stone were removed or picked up to determine what soil was under them. However, a CCC trench passing immediately adjacent to the feature revealed the undisturbed subsoil layer (see p.78) at the same depth as the bottom edges of the bricks, so it is assumed that they are on, or almost on, this layer.

A number of jumbled brick fragments and stones (some whole and some frag-



figure 23

northeast bastion, trench I looking nnw

CCC test trenches exposed and cleaned out



figure 24

northeast bastion, trench II

overhead view of the brick feature with depression

wall on left and CCC trench bottom on right

mentary) were found at the same depth as, and adjacent to, the brick feature in trench II and extending into trench III; three or four stones were found directly on top of the brick feature. The stones were both angular and rounded. A few of them, excluding those lying on the brick feature, had mortar adhering. In contrast, most of the stones in the black soil and mortar layer and brown soil and mortar layer did have mortar adhering. These two layers also contained fewer brick fragments than those found in the brick feature and the jumbled brick and stone deposit.

In trench II bits of brick were found in the undisturbed subsoils layer (see p. 78) in the bottom of the CCC trench immediately adjacent to the brick feature and the jumbled brick. In trench II the brick feature and jumbled brick and stone are set in a slight depression apparently deliberately cut into the undisturbed subsoil and bright brown soil layers. The average visible depth of the depression is 4 inches. The maximum visible length and width of it are 9 and 4 feet respectively. No artifacts were found in direct association with the brick feature.


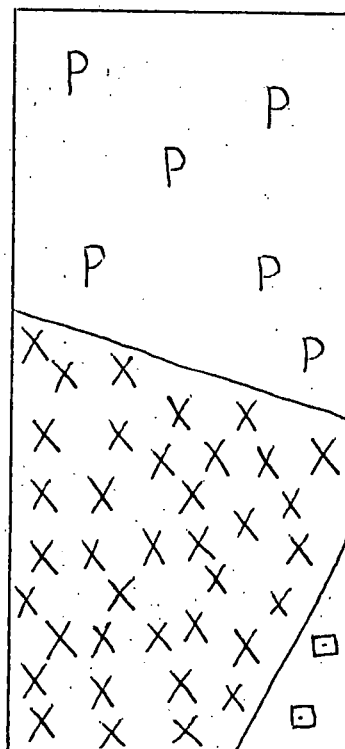
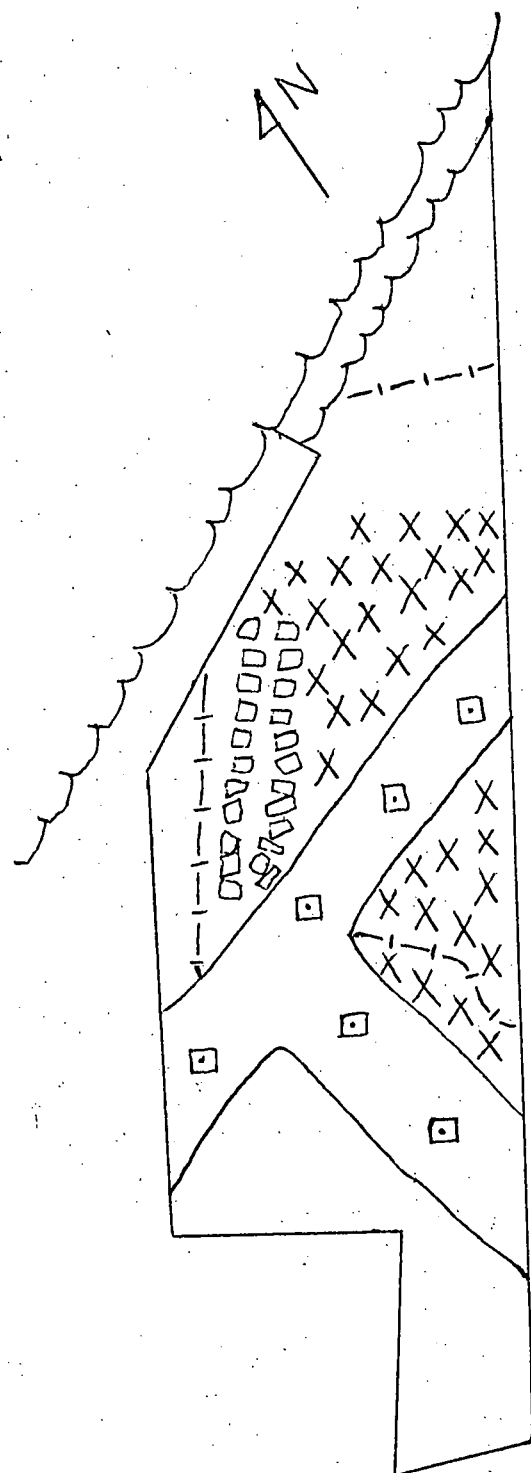
Interpretation







Based on its position relative to the other deposits in trenches II and III the feature was deposited sometime in the 1756-1934 period.

The fact that the brick feature and the jumbled brick and stone are covered by two distinct soil layers, and that they differ from the black soil and mortar layer in the amount of brick and unmortared stone they contain, indicates that the brick feature and jumbled brick and stone are most likely the results of a distinct episode of deposition unrelated to the deposition of the black soil and mortar layer and brown soil and mortar layer rather than the earlier stage in an activity also involving the deposition of the latter two layers. The orientation of the brick and stone composing the brick feature indicates that the brick and stone were carefully laid in their present position and thus are the undisturbed remains of some sort of structure. The fact that the stone and brick in the brick feature and jumbled deposit are identical, that both occur at the same

figure 25

NE BASTION TRENCHES II AND III

Plan view of brick feature and
associated remains
 32 inches
approx. scale one inch =
thirty-two inches

-  CCC trenches (1934)
-  pit-like disturbance (1934?-1937?)
-  brick feature (1756-1934)
-  edges of brick feature depression (1756-1934)
-  jumbled brick and stone (1756-1934)
-  existing bastion wall stones

depth and inside the depression, and that the dull brown soil layer covers both seems to indicate that the brick feature and the jumbled brick and stone are the remains of a single structure. The brick bits found in the bottom of the CCC trench may indicate that a portion of this feature was completely removed by excavation of this trench. Since it could date as early as 1756, the feature could conceivably be the remains of a 1756-1758 powder magazine or other structure. However, it could just as easily be the remains of a 19th or even 20th century structure.

Bright Brown Soil Layer (see figures 13 and 14)

This layer consists of a brownish yellow soil containing no specks of mortar or organic material. It is slightly brighter than the dull brown soil layer. No artifacts were recovered from it.

The bright brown layer was deposited sometime in the 1756-1934 period based on its position relative to the other deposits in trenches II and III. It is uncertain whether the layer was deposited by man or nature. It could have been deposited before the depression in which the brick feature is located was planned, or it could have been deliberately deposited as a part of the structure represented by the brick feature.

Organic Lens (see figures 16-18, 20-22)

Description

The organic lens was found in the square and trenches IV, V, VI, VIII and IX. Its description is the same as that of the organic lens found in the southwest bastion except that scattered pieces of black fibrous organic material were also found in it. The grain of the fibrous material is oriented in a number of different directions. A slight gap between the lens and the existing bastion wall was found in trenches IV, V and VI. In trenches IV and V the lens ends at the middle of, or slightly below, a lip in the existing wall. No lip was present in that portion of the wall exposed by trench VI. A square iron nail, probably of the 1700-c.1850 hand wrought type, and a piece of apparently native chert or

flint were recovered from the lens.

Interpretation

As in the southwest bastion, the organic lens in the northeast bastion is an accumulation of topsoil and probably was the surface of the ground in 1756 before construction of the fort was begun. The horizontal and vertical orientation of the lens, as well as the fibrous organic material (which is indeed probably decayed wood) indicates that it is almost certainly the "thin layer of decayed wood" shown on the 1934 "Archaeological Plan." It is assumed that in 1934 the lens was simply misinterpreted as being composed solely of "decayed wood" rather than topsoil containing scattered pieces of decayed wood.

If the lens and "decayed wood" are the same deposit, and if the horizontal distribution of this deposit is shown correctly on the "Archaeological Plan," then it is possible that the absence of the organic lens in the centers of both this and the southwest bastion could be the result of its removal during the construction of structures in these locations sometime before 1934.

Curved Disturbance (see figure 20)

This disturbance was found in trench VIII and consists of a relatively long and curved deposit of material darker than, but otherwise similar to, the organic lens. Lack of time made it impossible to obtain the measurements of this disturbance. The disturbance opens onto the organic lens. No artifacts were recovered.

The irregular configuration of the disturbance indicates that it is most likely a tree root mold. The tree could have been present either before and/or after 1756.

Undisturbed Subsoil Layer; Concentration of Stones;Hard Pan (see figures 12-22)Descriptions

The undisturbed subsoil layer was found in the square and all trenches. The hard pan was found in trenches III, IV, V, VI, VIII and IX. Both deposits are identical in appearance to their counterparts in the southwest bastion. In trench I two pieces of unglazed brick, two pieces of mortar (all of 18th, 19th or 20th century date), two square iron nails (apparently 19th or 20th century machine cut) and one 19th century-c.1917 uncolored glass bottle neck were found just in the surface of the undisturbed subsoil layer, immediately beneath the subsoil fills layer. In trench IV a very slight color difference in that portion of the undisturbed subsoil layer immediately adjacent to the existing bastion wall was found. The color change began at the top of the undisturbed subsoil layer and ended at the bottom of the existing wall. In trenches IV and V that portion of the existing wall covered by the undisturbed subsoil layer was less carefully constructed than the portion above the wall's projecting lip.

The concentration of stones was found in trench V. It consists of a low deposit of jumbled stones beginning immediately adjacent to the existing bastion wall and ending 7 feet from the wall. It is at the same depth as the bottom of this wall. The stones are surrounded by undisturbed subsoil layer soil but are very close to the hard pan. A very slight color change in that portion of the undisturbed subsoil layer surrounding this stone concentration was noticed.

Interpretations

As in the southwest bastion, the hard pan is definitely, and the undisturbed subsoil layer almost certainly, undisturbed subsoil present before construction of the fort was begun. The context of the artifacts found in trench I in the northeast bastion indicates that they were probably deposited by the CCC sometime in the 1934-1937 period. The difference in the existing bastion wall's stone work most likely indicates that the organic lens was the ground surface in at least this portion of the bastion for all or part of the 1756-1758 occupation

of the fort. The very slight color change noticed in trench IV may be natural or could indicate the presence of a construction trench excavated in order to build the existing bastion wall. If this is the case, the presence of a construction trench would indicate that the organic lens was actually deposited after construction of the fort was begun rather than before because the organic lens extends uninterrupted over the alleged trench. Although the concentration of stones is probably a natural pre-1756 deposit (Indeed, the fact that the bottom stones of the bastion wall and the highest stones of the concentration of stones are at about the same level suggests that the digging of the bastion wall's construction trench was stopped when the concentration of stones was struck.), the very slight color change in the soil around it could indicate that it was actually deposited by man (Bastian 1973b, Bastian: 1973 interview). If this were the case then the stone could have been discarded as excess material during the construction of the existing wall. At the same time, the deposition of the stones by man would again indicate that the organic lens was deposited after construction of the fort was begun rather than before.

RECOMMENDATIONS FOR FUTURE ARCHAEOLOGICAL INVESTIGATIONS

These recommendations deal only with the fort proper. No priority has been assigned to the recommendations except for the first two.

- A. Since the "soldiers' barracks" will apparently be the first portion of the fort to be reconstructed, it is suggested that they be the first areas explored by any new archaeological project. Although both barracks were supposedly completely excavated by the CCC, the project just completed has shown that the CCC did overlook important evidence in both bastions explored. It is just as possible that evidence in either or both of the barracks was also missed. The possibility that a full or partial cellar existed in either or both of the barracks should not be discounted.

While it may not be feasible to completely excavate even one of the barracks, it is suggested that at least two more test trenches be excavated in the eastern barracks to supplement the one excavated there in 1971 by the Maryland Geological Survey. One trench could be cut in the center and one in the northernmost quarter of the barracks for maximum coverage. Both should cut the barracks widthwise (roughly west to east) and extend beyond both barracks' walls about five feet. In the western barracks three trenches should be excavated in approximately the same position as those in the eastern barracks.

- B. Before any archaeological work other than the investigation of the "soldiers' barracks" takes place, a study should be made of deeds, wills, insurance policies, tax records, etc. from the earliest extant through the year in which the State of Maryland obtained the fort site. At the same time records of alterations, etc. done while the fort has been in State hands should also be studied. This would almost certainly provide archaeologists with invaluable information on the non-military periods of occupation of the fort site and on the nature and location of buildings and other features which may be found by the archaeologists. Because of the large amount of time and specialized research knowledge required for such a study, this work should be done by an historian rather than an archaeologist.
- C. One test trench should be excavated in each of the three sections of the "officers' quarters." Again, this would be to determine whether or not this building was completely excavated by the CCC. Since this building was apparently used as a storehouse during the French and Indian War, the possibility that any or all of these three sections contained a cellar overlooked by the CCC does exist. Testing should also be done in the front of this building in an effort to locate evidence of porches, stairs, etc.
- D. The presence or absence of an outer ditch around the fort must be established. This can be most quickly determined by using a combination of aerial photography (as suggested by the State Archaeologist) and test

trenches. The aerial photographs would have the advantage of providing an immediate view of the entire fort area. The situation indicated by the photographs could then be confirmed by excavating at least three trenches. To save time these trenches could be excavated with a backhoe. The exterior main gate area as well as any anomalies indicated by the aerial photographs should be excavated by hand. Eventually the entire ditch (if it exists at all) should be excavated in order to determine with all possible certainty its original position, to uncover any structural evidence present, and to obtain any artifacts present.

This work is of great importance in determining the original cross section of the fort walls. The complete absence of a ditch would argue most strongly against there originally being an earth fill between two retaining walls in any part of the fort. A ditch completely encircling the fort would argue most strongly in favor of there originally being such a wall in most or all of the fort. The possibility that a ditch existed around only a portion(s) of the fort should not be discounted, and the discovery of such a situation would make extensive exploration of the interior of the fort for wall construction evidence imperative. Even the complete absence of a ditch or the presence of a ditch completely encircling the fort does not do away with the need for some investigation of the interior fort wall area to determine with as much certainty as possible the wall cross section.

- E. An excavation should be conducted between at least one of the three barracks' foundations and the fort wall. The area exposed should be approximately 20 feet wide and should extend from the foot of the fort wall to the foot of the barracks' foundation. This would be done in order to expose a large enough area to determine the original cross section of the fort wall. Care would have to be taken in differentiating any evidence of the platforms built by the CCC while restoring the fort walls from earlier structures. The possibility that the cross section of the wall

varied from section to section even during the French and Indian War occupation should not be discounted and argues in favor of such wide cuts being made adjacent to all four curtain walls.

- F. Both the southwest and northeast bastions should be completely excavated because the complex archaeological deposits there will be understood only after they have been entirely exposed. Because the archaeological record in the southwest bastion seems clearer, this bastion should be completely excavated before any work is commenced in the northeast. The information uncovered in the southwest bastion should be invaluable in interpreting the more confusing deposits in the northeast bastion and may indicate where to look for 18th century deposits or features not yet discovered.
- G. Both the southeast and northwest bastions should be tested to determine the nature of their archaeological deposits. The large number of pre-1934 trees in the southeast bastion suggests that CCC excavation there was minimal, thus enhancing the possibility of finding undisturbed 18th century deposits.
- H. Testing should be done inside the fort on both sides of the main gate. Both Messrs. Emil Kish and Ross Kimmel have suggested the possibility that French and Indian War structures existed here.
- I. Completely excavate the "trash layer" found in the southwest bastion. This will indicate the date of this deposit beyond any reasonable doubt, provide a large number of artifacts of known date for study and display, and if the deposit does pre-date 1770, give some indication of the original grade of the fort's interior.
- J. Provision should be made specifically for properly conserving, identifying and interpreting the artifacts recovered by this project and all future projects. All artifacts are meaningless unless properly identified and interpreted. Particularly in the case of metallic and organic artifacts, complete deterioration is likely unless artifacts are properly conserved.

A RECOMMENDATION FOR MUSEUM DISPLAYS

A possibility would be the construction of a full scale soil cross-section with all strata and features delineated and actual artifacts protruding from them. There is a very effective exhibit of this type at the Colonial Williamsburg visitors' center. The cross-section could be a reproduction of a trench profile actually exposed during the project or a composite of deposits from several trenches. Alternatively a smaller scale cross-section could be prepared with actual artifacts off to the side and connected to their respective strata and features by arrows or lines.

This display would not only give the visitor some idea of what was found by the project, but could also be used to educate the visitor about basic archaeological principles such as relative age and the use of artifacts and documents to date strata and features.

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Appendix 1 (continued)

	+A	+B	+C	+D	+E	+F	s.1	s.2	s.3	s.4	s.5	+I	+II	+III	+IV	+V	+VI	+VII	+VIII	+IX	s.
disturbance II	X																				
occupation lens			X	X																	
light to medium brown soil layer	X		X	X	?	?															
combination pit and trench-like disturbance																	X				
ash deposit												X									
stone and concrete														X							
pit-like disturbance														X							
apparent pit-like disturbances															X			X			
narrow disturbance																			X		
light brown soil with traces of brick and mortar layer																					X
organic stratum																					X
medium brown soil feature												X									
charcoal concentration on surface of black soil and mortar layer													X								
black soil and mortar layer													X	X	X	X	X				
brown soil and mortar layer													X		X	X	X				
organic streak																X	X				
medium brown soil with mortar and charcoal layer																X					
possible disturbance																X					
tan soil layer																X			X		
brown layer																X					
brown soil and gravel layer																X	X	X	X		
pale greyish yellow soil layer																X	X	X			
concentration of gravel																X	X	X			
mortar lens C																X					
mortar lens D																	X				
yellowish brown soil layer																X	X				X
hard layer																X					
yellow, grey and black soils layer													X								
mixed soils layer													X								
grey soil layer													X	X							
dull brown soil layer													X								
brick feature													X								
bright brown soil layer													X								
organic lens	X		X	X	X	X									X	X	X		X	X	X
curved disturbance																			X		
undisturbed subsoil layer	X	X	X	X	X	X	X					X	X	X	X	X	X	X	X	X	X
concentration of stones																X					
hard pan			X												X	X	X		X	X	

NE Bastion

Correlation of Layers and Features

SWB_{action}

in the Southwest and Northeast Bastions

NE Bastion

[illegible]

APPENDIX 2

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